

AIR QUALITY MONITORING REPORTS 1981

Volume 1

STANDARDS DEVELOPMENT BRANCH OMOE



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**HAZARDOUS CONTAMINANTS
AND STANDARDS BRANCH**
135 ST. CLAIR AVENUE WEST
TORONTO, ONTARIO M4V 1T1

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Ministry
of the
Environment

Hon. Andrew S. Brandt
Minister

Gérard J. M. Raymond
Deputy Minister

ARB-136-83-AQM: ISSN 0704-3325

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ONTARIO 1981

VOL. 1

Summary of Data

ARB-136-83-AQM



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Introduction:

This report, Volume 1, contains a summary of 1981 air quality data obtained by continuous monitoring instruments for gases and hi-volume samplers for particulate matter operated by the Ministry of the Environment at 216 locations across Ontario including a 19 site network run as part of the Nanticoke Environmental Monitoring Program (NEMP) survey in the counties of Norfolk and Haldimand on the north shore of Lake Erie.

Summaries of the hourly averaged data for sulphur dioxide, soiling index, carbon monoxide, methane, hydrocarbons (total and reactive), ozone, total reduced sulphur, nitrogen dioxide, nitric oxide and nitrogen oxides as well as the daily measured data for total suspended particulate matter, lead, iron, copper, cadmium, chromium, zinc, manganese, nickel, vanadium, sulphate and nitrate obtained at these monitoring locations are available on microfiche. Requests for these data should be sent to Air Quality Unit, Air Quality and Meteorology Section, Air Resources Branch, Ontario Ministry of the Environment, 880 Bay Street, Toronto, Ontario, M5S 1Z8.

Volume 2 of the 1981 Air Quality Monitoring Report contains seasonal summaries for the above pollutants and is also available on microfiche.

Sampling Stations:

Table 1 lists the stations in the Ontario monitoring network with continuous hourly sampling instruments. The first seven columns give the region in which the monitor is located, the station identification number and name, its bearing on the Universal Transverse Mercator (UTM) grid projection, the elevation of the station above mean sea level, and the height of the air intake above ground. The remaining seven columns indicate which pollutants, total reduced sulphur (TRS), sulphur dioxide (SO_2), soiling index, 1-hour or 2-hour sampling rate, (COH), ozone (O_3), carbon monoxide (CO), hydrocarbons (HC), either methane, reactive (non-methane) or total, and nitrogen oxides (NO_x), including nitric oxide and nitrogen dioxide, are being monitored at that station.

The general locations of the continuous monitors across Ontario are shown in Figure 1 as well as the number of sites in each region and city. The Central Region has the most monitoring sites: 28. The locations of continuously monitoring stations for Metropolitan Toronto, Hamilton, the Sudbury area, and Windsor are shown in Figures 2, 3, 4 and 5 respectively.

Table 2 lists the stations in the Ontario monitoring network for suspended particulate matter using the hi-volume sampling method. The first eight columns give the region in which the monitor is located, the station number and name, the survey type, the UTM grid coordinates, the station elevation and air intake height. Except for survey type, these columns are the same as those in Table 1. The survey type consists of a letter indicating the survey purpose, either oriented towards a specific source (S) or for general ambient air quality (A), (N) indicates the site was nonconforming to the Canadian Federal-Provincial criteria for monitor siting to such a degree that resulting data may not be strictly comparable with other monitoring results, and the numeral indicates sampling frequency - daily (1), once every three days (3), or once every six days (6). The remaining four columns indicate those analyses performed on the exposed filter that are herein reported: total suspended particulate matter (TSP), lead by X-ray fluorescence technique (Pb(XRF)), one or more of the metals, lead, iron, zinc, copper, cadmium, chromium, vanadium, nickel, and manganese, by atomic absorption (AA)

or induced coupled plasma (ICP) techniques, and sulphate and nitrate ($\text{SO}_4^{2-}/\text{NO}_3^-$).

The general locations as well as the number of hi-volume monitors in each region and city are given in Figure 6. The greatest number of samplers is found in the Central Region (49), 26 of which are located in Metropolitan Toronto. The location of monitors in Metropolitan Toronto, Hamilton and Windsor are found in Figures 7, 8 and 9 respectively.

Data from the NEMP survey are provided by the NEMP project team of the Special Studies Unit of the Atmospheric Research and Special Programs Section of the Air Resources Branch who are responsible for the data acquisition and validation of data for this report.

Criteria for Desirable Ambient Air Quality:

When pollutants are released into the ambient air, they may, at some concentration, have a significantly adverse effect on man, animals, vegetation or property. In order to determine at what concentration significant adverse effects occur, Ontario employs a permanent standards setting committee. The committee, comprised of experts in several fields, reviews the scientific literature and recommends concentrations and averaging times for the air quality criteria. The desirable ambient air quality criteria are set at the lowest concentration causing a known significantly adverse effect. These criteria, therefore, serve as a convenient yardstick by which the Province may estimate its success in achieving its goals for desirable ambient air quality through emission controls.

Table 3 outlines the criteria for desirable ambient air quality for those contaminants contained in this report. The criteria are given in units of parts per million by volume of air, parts per billion by volume of air, coefficient of haze (COH) per 1000 feet of air or micrograms per cubic metre of air for the sampling time appropriate for each criterion: 1 hour, 8 hours, 24 hours, or 1 year.

1981 Measurements:

Validation and processing of air quality data in Ontario is the responsibility of the Air Quality and Meteorology Section of the Air Resources Branch. The instrumentation, however, has been installed and maintained by the Technical Support Group in each of the six Regional Offices. Analysis of hi-volume filters is done by the Ministry's Laboratory Services and Applied Research Branch.

Continuous monitoring data are acquired in two ways. Data from stations in major population centres and those areas which have a publicized Air Pollution Index are telemetered in real-time to the central data-acquisition facility at the Air Resources Branch in Toronto where they are digitized, stored on magnetic tape, and then computer-processed into the Air Quality Information System (AQUIS). All other data are recorded locally on analogue charts which are later read and digitized by the Air Quality Unit, Air Quality and Meteorology Section, Air Resources Branch and then processed by computer and entered into the AQUIS files in the same way as the telemetered data.

Exposed filters from the hi-volume sampling network are collected by the Regions and are sent to the Laboratory Services and Applied Research Branch. There, the total suspended particulate concentration is

determined, and any analyses for the components of the particulate matter required are performed. Data are then stored in the Laboratory's Sample Information System (SIS) and, at intervals, abstracted from the SIS files to the AQUIS files.

In this Volume, the annual summaries of hourly readings and hi-volume results of each station and contaminant are reported. Each line gives the station number and location, the number of months or samples for which valid data were obtained, the percentile distribution, and, where appropriate, the number of times the air quality criteria were exceeded. For continuous monitoring results, the arithmetic mean, minimum and maximum 1-hour concentration, and maximum 24-hour concentration are also reported. (In the case of carbon monoxide, the maximum 8-hour concentration is reported instead of the 24-hour concentration.) For the hi-volume results, the arithmetic mean, geometric mean, and maximum 24-hour concentrations are reported. The reported percentiles (10, 30, 50, 70, 90, and 99) indicate the cumulative frequency distribution for that pollutant. That is, the concentration reported is that concentration which is not exceeded X% of the time. For example, if the 70 percentile for SO₂ is .010 ppm, this means that, at that site, the concentration of SO₂ did not exceed .010 ppm on 70% of the hours reported.

Only those stations which report valid readings on 6570 hours for all continuous 1-hour monitoring, 3285 hours for continuous 2-hour monitoring and 40 samples for hi-volume monitoring during 1981 are considered to have an adequate sample size from which to determine a representative annual mean. For those stations reporting fewer than the required number of samples, the reported arithmetic or geometric mean cannot be considered as representative for the comparison with the annual criterion for sulphur dioxide, soiling index, or total suspended particulate matter.

Analyses of Data:

Sulphur Dioxide: (See Table 4)

When fuels containing sulphur are burned or ores containing sulphur are smelted, the sulphur joins with the oxygen in the air to form sulphur oxides. Sulphur dioxide (SO₂) is the major sulphur oxide produced in these processes. It is a heavy, pungent, colourless gas which easily combines with water vapour to form sulphurous acid (H₂SO₃) or with oxygen to form sulphur trioxide (SO₃). Both sulphurous acid and sulphur trioxide may further react to form sulphuric acid (H₂SO₄) – a major component of acid rain.

The gaseous sulphur oxides (SO₂ and SO₃) have been associated with human respiratory illness, vegetation damage, and the weathering of materials. In the acid or acid salt form (sulphate or sulphite), the sulphur oxide can adversely affect respiratory health, vegetation, or materials, and cause reduction of visibility through the atmosphere. Sulphur oxides also are a major factor in increasing the acidity of precipitation.

Inventoried emissions of sulphur dioxide in 1981 were approximately 1.60 million tonnes, of which 0.97 million tonnes were emitted in the primary smelting of nickel, copper, and iron in the Sudbury and Wawa areas. Thermal generating stations are the largest sources of SO₂ in southern Ontario accounting for 0.42 million tonnes in 1981. The remaining 0.21 million tonnes are emitted by commercial and residential fuel users as well as refineries, coke ovens, and other industrial operations.

Of the 74 stations in the Ontario network, only two recorded a valid annual mean above the annual criterion of 0.02 ppm: Niagara Falls Rd./Ontario St., Thorold (0.040

ppm) and Holy Trinity Church, Norton/Portage, Chippawa (0.029 ppm). Both these stations are located near an industrial source of SO₂.

Most of the stations which exceeded either the 1-hour or the 24-hour criterion on more than one occasion were located in the vicinity of major industrial sources of SO₂. The station measuring the highest 24-hour average (0.39 ppm) was Niagara Fall Rd./Ontario St. in Thorold. The highest 1-hour average (1.45 ppm) was measured at Michipicoten Ave. in Mission.

Twenty-nine stations reported exceedences of the 1-hour criterion of 0.25 ppm. The most exceedences (253) occurred at Niagara Falls Rd./Ontario St., Thorold as did the most exceedences of the 24-hour criterion: 31. Ten stations exceeded the 24-hour criterion at least once.

Carbon Monoxide: (See Table 5)

Carbon monoxide (CO) is produced during the incomplete combustion of hydrocarbon fuels. In terms of total weight and concentration, it leads all other contaminants in city air. Mobile sources, mainly cars, trucks, and buses, are almost exclusively responsible, accounting for over 90% of all CO emissions. Pollutant control equipment on automobiles has been the main method used in reducing CO emissions in Ontario.

When CO is inhaled, it enters the bloodstream through the lungs and binds chemically to hemoglobin, the substance which transports oxygen to the cells of the body. Because CO is bound to the hemoglobin instead of oxygen, less oxygen is available for transport to the muscles and organs. With less oxygen available to the heart, there is a reduction in the amount of blood pumped through the body and therefore the amount of oxygen available to the body is further reduced. In a person with heart disease, the effects of excessive carbon monoxide can be hazardous. Those persons with respiratory disorders such as emphysema may also be severely affected.

The highest concentrations of carbon monoxide were measured at 381 Yonge St. in Toronto. This station, located close to a major traffic artery and within the urban street canyon, measured an annual average of 4.3 ppm, a maximum 8-hour average of 27 ppm and a 1-hour maximum of 47 ppm. The 8-hour criterion of 13 was exceeded 40 times at this station, and the 1-hour criterion of 30 ppb was exceeded 17 times. The 8-hour criterion was exceeded at 67 College St., 2nd Floor, Toronto once.

Hydrocarbons: (See Tables 6, 7 and 8)

Hydrocarbons are emitted naturally from trees and other vegetation and in the decay of animal and plant material. They are also emitted by motor vehicles, gasoline storage tanks, and many industrial sources such as the petroleum and chemical industries. The non-methane fraction of the total hydrocarbons is of special interest because it reacts with the nitrogen oxides in the atmosphere in the presence of sufficient sunlight to form ozone and other oxidant chemical species.

Three types of measurement of hydrocarbons are made in Ontario: methane, reactive (non-methane) hydrocarbons, and total hydrocarbons. The instrumentation used employs flame ionization detection techniques to determine the total hydrocarbon concentration in parts/million of carbon, as well as the methane concentration and the reactive (non-methane) hydrocarbon concentration.

No criterion have been set for desirable ambient concentrations of total hydrocarbons, reactive hydrocarbons or methane. The highest annual mean for total hydrocarbons was reported at King-Rectory in London and at Bronte Rd./Woburn Crescent in Oakville: 2.36 ppm.

The highest annual mean methane concentration (1.53 ppm) occurred at Nanticoke Rd./Walpole Conc. 5, Nanticoke as did the highest annual reactive hydrocarbon concentration (0.78 ppm).

No monitoring station measured all three types of hydrocarbons over a full year. Two short-term surveys in the Sarnia area measured all three over a period under 100 days.

Ozone: (See Table 9)

Ozone is a naturally occurring constituent of the upper atmosphere where it plays an important role in the maintenance of life on the ground by absorbing harmful ultraviolet radiation. In the lower atmosphere, ozone is detrimental to the health of man and plants and causes damage to some materials. Unlike most other pollutants, however, ozone is generally not directly emitted into the atmosphere by specific sources. Instead, it is the product of chemical reactions in the presence of adequate sunlight between reactive hydrocarbon compounds and nitrogen oxides.

Ozone is the main constituent of the Los Angeles-type smog which along with other photochemical oxidants and peroxyacyl nitrate (PAN) have been associated at high concentrations with adverse effects on human health. Ozone may irritate the lining of the nose and throat and hinder the functioning of the lungs. Many plants, especially some varieties of commercial crops such as white bean and tobacco, may be severely injured or killed by high concentration of ozone.

Since time is required for the photochemical reactions to produce ozone, the highest concentrations are often found some distance downwind from the source of the nitrogen oxides and reactive hydrocarbons. In addition, ozone is capable of travelling long distances through the atmosphere. Thus, ozone formed in the Mississippi or Ohio River Valleys in the United States may reach Ontario. This long-range transport of ozone has become a major area of concern in recent years.

Ozone transport and formation are both very dependent upon large-scale weather conditions, therefore year-to-year average concentrations as well as the number of criterion exceedences may be quite variable. Ozone concentrations are also seasonally dependent with highest concentrations occurring during the late spring and summer. Therefore, annual mean concentrations are of lesser importance than the number of hours the 80 ppb criterion is exceeded. The only stations which did not exceed the 1-hour criterion in 1981 were located in Ottawa, Thunder Bay and Sudbury. Stations reporting more than 100 exceedences of the criterion were located at Long Point Provincial Park (159), Simcoe (138), Tiverton (113), Huron Park (110) and Windsor (106).

The maximum 1-hour concentration was measured at Centennial Park, Sarnia: 169 ppb. The maximum 24-hour O₃ average was measured at Simcoe: 86 ppb.

Total Reduced Sulphur: (See Table 10)

Much of the total reduced sulphur (TRS) measured in Ontario is in the form of hydrogen sulphide (H₂S). In the vicinity of pulp and paper mills and refineries, however, significant concentrations of mercaptans and other reduced sulphurs may be present. Reduced sulphur compounds are also released from swamps, bogs, and marshes as the result of anaerobic decay processes.

The reduced sulphurs are objectionable because of their unpleasant odour at very low concentrations (often less than 30 ppb). Silver and copper tarnish and lead-based paints blacken in the presence of H₂S.

Maximum concentrations of total sulphur for a 1-year average (12.2 ppb) and 1-hour average (435 ppb) were measured at Holy Trinity Church, Norton/Portage, Chippawa. The maximum 24-hour concentration occurred at Portage/Church St., Fort Frances (129 ppb). The majority of stations, most of which monitor near industry, reported maximum concentrations in excess of 60 ppb. No criteria have yet been set for TRS although a guideline of 27 ppb for a 1-hour average has been set for measurements made in the vicinity of Kraft paper mills. All such monitors exceeded the guideline.

Oxides of Nitrogen:

Nitrogen Dioxide: (See Table 11)

Nitrogen dioxide (NO₂) is one of a number of nitrogen oxide compounds which are formed both by man and nature. The main natural sources in the lower atmosphere are lightning and soil bacteria. Nitrogen and oxygen from the atmosphere are also combined during high temperature combustion such as occurs in automobile engines, power plants, incinerators and many chemical processes.

Nitrogen dioxide in high concentrations may have a detrimental effect on the respiratory system especially to those with chronic lung disease. Nitrogen dioxide may also react with hydrocarbon compounds in the presence of sunlight to form ozone and other photochemical pollutants, (See section on Ozone) or react with water to form nitric acid, a component of acid precipitation, which may affect health and corrode materials.

Nitrogen dioxide was measured at 26 sites in Ontario in 1981. The maximum annual mean NO₂ concentration was 0.036 ppm at Evans/Arnold, Etobicoke. The maximum 1-hour and 24-hour concentrations were measured at Edna/Frederick, Kitchener: 0.34 ppm and 0.11 ppm respectively. The Kitchener site was the only one to exceed the 24-hour criterion of 0.10 ppm doing so once. The 1-hour criterion of 0.20 ppm was exceeded at three sites: Edna/Frederick, Kitchener (9 times), North/Geneva St., St. Catharines (4), and North Park, Hamilton (3).

Nitric Oxide: (See Table 12)

Nitric oxide (NO), like nitrogen dioxide, is formed by natural sources such as lightning and bacteria and by high-temperature combustion of fossil fuels such as in automobile engines. In the latter formation, it is nitric oxide which is formed first and, when in high concentration and in the presence of oxygen or hydrocarbons, oxidized further to nitrogen dioxide.

No evidence exists that nitric oxide at the concentrations measured in the ambient atmosphere has any direct adverse effect on health and welfare. However, with its conversion to NO₂, the effects mentioned previously may occur.

Nitric oxide is measured at 30 sites in Ontario. The maximum annual mean concentration of nitric oxide, 0.082 ppm, was measured at Bathurst/Wilson, North York. The maximum 1-hour concentration was recorded at Edna/Frederick, Kitchener: 0.95 ppm. The maximum 24-hour average of 0.46 ppm was reported at Bathurst/Wilson, North York. Each of these sites is located near a major highway.

Nitrogen Oxides: (See Table 13)

Nitrogen oxides, the sum of nitrogen dioxide and nitric oxide concentrations, are measured at 30 sites. The maximum annual concentration of 0.110 ppm occurred at Bathurst-Wilson, North York as was the maximum 24-hour concentration: 0.52 ppm. The maximum 1-hour con-

centration (1.07 ppm) was reported at 467 University Ave. W., Windsor.

Suspended Particulate Matter:

Traditionally, air pollution has been identified with black or dark smoke. Improved combustion technology and a switch to cleaner-burning fuels have eliminated most of the sooty particles causing the darkness of the smoke. Suspended particulate matter is still, however, the most visible of air contaminants. The composition varies considerably with time and place and may contain soil particles, organic matter, or compounds containing sulphur, nitrogen, chlorine or metals such as lead.

Suspended particulate matter or its constituents may cause the corrosion or soiling of materials, a decrease in sunlight or atmospheric visibility, damage to vegetation, or adverse effects on human or animal health.

There are many sources of suspended particulate matter both natural and man-made. Fine particles of dust from combustion, incineration, construction, mining, metals smelting and processing, grinding processes, agriculture and transportation constitute much of man's contribution. Natural sources include wind-blown soil, forest fires, ocean spray, and volcanic activity. When the particulate matter is emitted into the atmosphere, most of the larger particles fall to the ground close to their source while the smaller ones may travel distances as great as thousands of kilometres with the wind before settling to the surface. It should be noted, however, that, based on estimates made in the United States, only 5% of the total particulate matter released into the atmosphere comes from controllable sources; the remaining 95% come from natural and fugitive sources.

Suspended particulate matter is collected by either the hi-volume method or the soiling index method in the Ontario network. The hi-volume method collects particles on a glass-fibre filter over a 24-hour period and the sampler is run on a once a day, once every three days, or once every six days cycle. The soiling index method samples on a paper tape for either one or two hours and is run continuously.

Soiling Index: (See Tables 14 and 15)

The soiling index is a relative measure of suspended particulate matter in the size range of particles which most easily enter the lungs. In this method, the soiling properties of the particulate matter deposited upon a paper tape are measured by the reduction of light transmitted through the soiled filter. The amount of reduction in transmission is related to the quantity, opacity, and darkness of the deposited particles. The evaluation is carried out on either a 1-hour or 2-hour sampling of air. The method of determining the soiling index differs slightly between the 1-hour and 2-hour sampling. The difference, however, is enough to make the distinction in the reported data necessary. The unit of measure for soiling index is the Coefficient of Haze (COH) per 1000 feet of air sampled.

Twenty-three stations reported soiling index for a 1-hour sampling period in 1981. The maximum annual mean was reported at North Park, Hamilton: 0.72 COH/1000 ft. Three sites, North Park, Hamilton, Barton-Wentworth, Hamilton, and Bathurst-Wilson, North York, exceeded the annual criterion of 0.50 COH/1000 ft.

The maximum 24-hour average (2.0 COH/1000 ft.) was measured at Evans-Arnold, Etobicoke. Sixteen monitoring sites reported 24-hour averages in excess of the 24-hour criterion of 1.0 COH/1000 ft. but only four did so more than 10 times. North Park, Hamilton (76), Bathurst-Wilson, North York (35), Sherbourne/Wilton, Toronto (28), and Barton-Wentworth, Hamilton (24).

Thirty-two stations reported soiling index for 2-hour sampling periods. None exceeded the annual criterion; the maximum annual average reported was 0.31 COH/1000 ft. at Burlington/Leeds, Hamilton. Eight sites reported exceedences of the 24-hour criterion but only one more than once.

Total Suspended Particulate Matter: (See Table 16)

Total suspended particulate matter (TSP) was measured at 167 sites in Ontario in 1981. Daily monitoring was performed at 30 sites, once every three days monitoring at 18 sites and once every six days monitoring at 119 sites.

The maximum annual geometric mean for TSP occurred at the Bonney St. Pumphouse, Sault Ste. Marie: 130 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The annual criterion of $60 \mu\text{g}/\text{m}^3$ (geometric mean) was exceeded at 49 sites.

The maximum 24 hour concentration was measured at Stollery Lake Trailer Park near Elliot Lake: $501 \mu\text{g}/\text{m}^3$. One hundred thirty four stations reported exceedences of the daily criterion of $120 \mu\text{g}/\text{m}^3$. The most exceedences at a daily monitoring station were 86 at 35 Bathurst St., Toronto, at a once in three-day station: 53 at Sherbourne/Wilton, Toronto, and a once in six-day station: 26 at Bonney St. Pumphouse, Sault Ste. Marie.

Sulphate in Suspended Particulate Matter: (See Table 17)

Sulphates (SO_4^{2-}) are formed by the oxidation of sulphur to sulphur trioxide which when combined with water vapour forms sulphuric acid (H_2SO_4). The sulphuric acid may then combine with ammonia or some other anion to form a sulphate compound.

Many different sources emit sulphur, or sulphur compounds into the atmosphere. Natural sources of sulphur include sea spray, bacterial decomposition, volcanoes and forest fires. Anthropogenic sources include the burning of fuel containing sulphur (such as coal and oil), the smelting of sulphur-containing metals, and the refining of petroleum.

The sulphate compounds, especially the acid forms, have been linked to respiratory irritation and disease, corrosion of materials, reduction of visibility and the formation of acidic precipitation.

Sulphate concentrations reported here are derived from sulphates collected on glass-fibre filters. It has been found that artifact sulphates form on glass-fibre filters from ambient SO_2 and that reported sulphate concentrations are therefore artificially high. No attempt has been made to correct the data reported here. Caution should be taken in interpreting absolute concentrations. Relative comparison among samples or stations is likely less affected.

The highest annual average sulphate concentration ($15.0 \mu\text{g}/\text{m}^3$) was reported at Bonney St. Pump House, Sault Ste. Marie, as was the maximum measured concentration for 24-hours: $65.0 \mu\text{g}/\text{m}^3$.

Nitrate in Suspended Particulate Matter: (See Table 18)

Nitrogen oxide compounds, formed from atmospheric nitrogen and oxygen under high temperature combustion, photochemical reactions or bacterial action may react with other compounds in the air to form nitrate (NO_3^-) or nitric acid (HNO_3).

Natural sources of nitrogen oxides or nitrates include lightning, biological agents, sea spray or photochemical reactions. Anthropogenic sources include all high-temperature combustion processes, transportation, and fertilizer production and usage. Nitrate and nitric acid are involved in corrosion of materials, visibility degradation, and acidic precipitation. They may also be an adverse factor in human health.

Particulate nitrate is collected in the Ontario network on glass-fibre filters. Studies have shown that, like sulphates, artifact nitrates are formed on this filter medium. There remains some controversy as to the degree of artifact formation. The data reported herein are unaltered and user caution is recommended in interpreting absolute concentrations.

The maximum annual concentration of particulate nitrates, 7.0 ug/m^3 , was reported at City Hall, Windsor. The maximum measured 24-hour concentration was 25.0 ug/m^3 at Barton-Wentworth, Hamilton.

Lead in Suspended Particulate Matter: (See Tables 19 and 20)

Because of its many useful properties, lead has been utilized by man since antiquity. The health hazards of this metal have also been long recognized. The concern over these hazards focused during the 19th and 20th century on death and serious illness caused mainly by the ingestion of lead. With the near elimination of lead poisoning as a cause of death in the past two decades, attention now has turned to the more subtle adverse health effects of exposure to lead such as the impairment of mental functions.

Much of the particulate lead emitted into the atmosphere results from the combustion of gasoline containing lead additives. Other sources of lead particles include the secondary smelting of lead, battery manufacture, metal fabrication (brass, bronze, and solder), some paint and glass manufacture and the production of iron, steel, copper, and nickel. Since 1972, there has been a reduction in the lead content of gasoline. This reduction coupled with the introduction of lead-free gasoline in 1975 has resulted in a decrease in the amount of lead emitted from gasoline usage in Ontario.

The lead concentration on the hi-volume filters is determined by either X-ray fluorescence or atomic absorption spectrophotometry. Results for these two techniques are reported separately.

Maximum lead concentration are found in the vicinity of lead processing plants in the Metropolitan Toronto area. These operations have been under special intensive study since 1973. The maximum annual average concentration was measured at 2360 Dixie Road, Mississauga: 3.6 ug/m^3 . The highest single 24-hour measurement also occurred at this site: 29.7 ug/m^3 . The 24-hour criterion of 5.0 ug/m^3 was exceeded 93 times across this network. The most exceedences (77) were registered at 2360 Dixie Road, Mississauga.

The maximum concentrations at stations not near lead processing plants are found at stations monitoring close to major traffic arteries. The maximum annual mean concentration was recorded at Edna/Frederick St., Kitchener: 4.2 ug/m^3 . The highest single measurement was 1.3 ug/m^3 at Evans/Arnold Ave., Etobicoke. No sites measured lead concentrations in excess of the 5.0 ug/m^3 criterion.

Iron in Suspended Particulate Matter: (See Table 21)

Iron particles are among the most abundant of the heavy metals emitted into the air. Major sources include iron ore processing, steel manufacturing, incineration, coal burning, smelting of other metals and road dust. Iron is also released as the result of the weathering of iron/steel materials such as the rusting of automobiles. Natural sources of iron particles include volcanoes and terrestrial dust from the weathering of rocks and soil.

The analysis of the iron content of particulate is performed by atomic absorption spectrophotometry (AA) for induced coupled plasma techniques (ICP).

Nickel in Suspended Particulate Matter: (See Table 22)

The maximum 24-hour concentration for nickel occurred at Davis/Frazer, Port Colborne: 3.430 ug/m^3 . This station was the only one to exceed the criterion of 1.5 ug/m^3 doing so twice in 1981. The highest annual geometric mean was found at the Nickel Street Pump House, Copper Cliff: 0.240 ug/m^3 .

Copper in Suspended Particulate Matter: (See Table 23)

Sault College, Queen St., Sault Ste. Marie recorded the highest annual average concentration of particulate copper in 1981 (0.50 ug/m^3). The highest 24-hour concentration was 2.10 ug/m^3 collected at the Pickering Fire Hall, Pickering, well below the Ontario criterion of 50.0 ug/m^3 .

Cadmium in Suspended Particulate Matter: (See Table 24)

The maximum 24-hour concentration, 0.384 ug/m^3 was measured at 3050 Lakeshore Blvd., Etobicoke, as was the maximum annual average: 0.018 ug/m^3 . The criterion of 2.0 ug/m^3 for a 24-hour average was not exceeded.

Chromium in Suspended Particulate Matter: (See Table 25)

The 633 Eastern Ave., Toronto monitor recorded the highest annual average chromium concentration in 1981: 0.066 ug/m^3 . The highest 24-hour measurement in the Province, 0.691 ug/m^3 , was at Barton/Wentworth, Hamilton. The criterion of 1.5 ug/m^3 for a 24-hour average was not exceeded.

Zinc in Suspended Particulate Matter: (See Table 26)

Maximum zinc concentrations were recorded at Burlington/Leeds, Hamilton for the annual average (1.1 ug/m^3) and Barton/Wentworth, Hamilton for the 24-hour average (9.0 ug/m^3).

Manganese in Suspended Particulate Matter: (See Table 27)

The maximum manganese concentrations for a 1-year average (0.518 ug/m^3) and 24-hour average (1.497 ug/m^3) were recorded at Bonney St. Pumphouse, Sault Ste. Marie and North Park, Hamilton respectively. The 24-hour criterion was not exceeded.

Vanadium in Suspended Particulate Matter: (See Table 28)

The highest annual average concentration for particulate vanadium, 0.014 ug/m^3 , occurred at General Hospital, 220 Milton St., Sarnia. The 24-hour maximum of 0.141 ug/m^3 was reported at Chatham/Frid, Hamilton. No exceedences of the 2.0 ug/m^3 , 24-hour average criterion was measured in 1981.

Ontario's Air Pollution Index: (See Table 29)

Despite the best efforts of pollution control, the emission of contaminants into the air cannot be totally eliminated without bringing all man's activities to a halt. Whenever pollutants are released to the atmosphere, the potential exists for the buildup of concentrations to unacceptable levels during weather conditions which are unsuitable to their dispersion or removal (e.g. light winds, limited vertical mixing depth). Since it is economically unrealistic, and at times impossible, to control emissions so that under no circumstances will pollution concentrations approach critical levels, there is a need for an alert system to warn of increasing pollution concentrations.

The Air Pollution Index (API) was introduced in Ontario in 1970 to protect the public from air pollution episodes caused by emissions under adverse weather conditions. Two pollutants, sulphur dioxide and suspended particle matter, were chosen for the Index based upon the results of health studies during severe air pollution episodes. These studies showed a definite correlation between illness and high concentrations of SO₂ and TSP. The API was thus devised as a basis for action in an alert system to control or prevent an air pollution episode caused by these two pollutants. Legislation in Ontario authorizes the Minister of the Environment to order any source not essential to public health and safety to curtail or cease its operations when pollutant concentrations which may be injurious to health are reached.

The Ontario API is calculated from the average SO₂ concentration and average soiling index for the preceding 24 hours. Hourly concentrations of these pollutants are measured in each city where an Index is reported and sent via the Ontario Air Quality Telemetry Network to the Air Resources Branch office in Toronto. There, a computer calculates the 24-hour averages and the resulting API which is released to the public. Whenever the API reaches critical levels, the duty meteorologist is informed and then, based upon his forecast, action may be taken by Regional Abatement Officers.

If the API reaches 32, and the duty meteorologist forecasts a continuation of adverse weather conditions for the next six hours, an "Air Pollution Advisory" is issued. At this time, significant sources of SO₂ and particulate matter are advised to curtail operations.

The "First Alert" level occurs at an API of 50 with meteorological conditions expected to continue for at least six hours. Major sources may be ordered by the Minister to curtail operations.

If abatement action does not succeed in stopping the rise in API, or if weather conditions worsen, a "Second Alert" is issued at 75. With a forecast of continued adverse weather, the Minister may order further curtailment.

At 100, an "Air Pollution Episode Alert" is issued and, again with a forecast of six hours of adverse weather conditions, all non-essential sources may be ordered to shut down their operations by the Minister. At this level, the pollution concentrations may have an effect on healthy individuals and may seriously endanger the health of those with severe cardiac or respiratory disease.

The Air Pollution Index Alert System was first introduced in Toronto on March 23, 1970. Since that time it has expanded to other Ontario cities: Hamilton in June 1970, Sudbury in January 1971, Windsor in March 1971, Happy Valley in May 1971, Welland in January 1974, Niagara Falls in November 1974, Coniston in February 1975, New Sudbury in March 1976, Sarnia in December 1977, and St. Catharines in September 1979. The Happy Valley API was terminated in January 1975 and the Welland API was terminated in October 1978.

No API station exceeded 50 in 1981. The maximum recorded API in the Province occurred on November 14 in Toronto when an Index of 43 was reached. The Advisory Level of 32 was reached on 8 occasions in Hamilton, 3 in Toronto, and once in Windsor and Sarnia.

The history of the Index stations - the maximum level and the number of times the Index equalled or exceeded 32 and 50 for the years 1970 to 1981 are given in Table 29.

Table 1 **Stations with Continuous Sampling Instrumentation**
(Pollutant data abstracted hourly or two-hourly)

REGION	STATION NUMBER	NAME OF STATION	UTM GRID		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TRS	POLLUTANT MONITORED					
			EAST	NORTH				SO ₂	COH	O ₃	CO	HC	NO _x
SOUTH WEST	10001	College of Agric. Tech., Huron Park	04600	47931	243	5				x			
	12008	467 University Ave. W. Windsor	03316	46867	183	11		x	x	x	x	x	x
	12013	3665 Wyandotte St. Windsor	03358	46874	183	6		x					
	12016	College-South St. Windsor	03290	46841	183	4		x	x				
	12032	Morton Dock Windsor	03271	46817	177	4	x	x					
	13021	MOE Pump. Stn. Middle Road											
	14004	Merlin Hydro SS	03991	46776	190	3				x			
		Concession 14/15											
		Courtright	03808	47343	183	3		x					
	14016	Lambton G.S. Hwy. 40											
		Courtright	03793	47397	180	4		x					
	14062	242 Indian Rd. S., Sarnia	03878	47578	183	4	x	x					
	14064	Centennial Park											
		Front St/CN Tracks											
		Sarnia	03854	47592	182	3		x	x	x	x	x	x
	14118	PUC Water Pump Stn											
		Hwy. 21											
		Petrolia	04027	47564	206	4				x			
	14903	Virgil LaSalle											
		Froomfield											
		Corunna	03814	47520	193	3						x	x
WEST CENTRAL	14904	East Sombra P.S.											
		Wilkesport	03892	47285	190	3		x		x		x	x
	15001	King-Rectory											
		London	04818	47595	259	4		x	x	x	x	x	x
	15003	362 Dundas St.											
		London	04801	47590	251	17			x				
	18007	Concession Rd. 2											
		Lot A											
		Tiverton	04541	49053	192	4	x	x		x			
	22071	Experimental Farm											
		Simcoe	05597	47449	236	4		x	x	x			x
	22086	Cheapside Rd.											
		3 Km S of Hwy 3											
		Nanticoke	05821	47472	206	5		x	x				x
	26029	Edna/Frederick St.											
		Kitchener	05427	48116	325	5		x	x	x	x		x
	27037	North/Geneva St.											
		St. Catharines	06431	47805	107	5		x	x	x	x	x	x
	27042	Niagara Falls Rd./											
		Ontario St.											
		Thorold	06469	47739	175	5		x					
	27046	Public Works, 200 m											
		S Beaverdam Rd.											
		Thorold	06460	47742	180	5		x					
	27048	Niagara Public Works											
		Dominion Rd.											
		Fort Erie	06670	47500	175	2		x					
	27049	Murray/Buchanan Ave.											
		Niagara Falls	06561	47716	195	5		x	x				
	27051	Holy Trinity Church											
		Norton/Portage											
		Chippawa	06580	47694	185	16	x	x	x				
	28025	Farquhar/Wyndham St.											
		Guelph	05609	48213	320	4		x	x				
	29001	Hughson-Main											
		Hamilton	05918	47894	99	9				x			

Table 1- Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID		SITE ELE- VATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TRS	SO ₂	POLLUTANT MONITORED					
			EAST	NORTH					COH	O ₃	CO	HC	NO _x	
WEST CENTRAL	29008	North Park Hamilton	05984	47927	79	3	x	x	x			x	x	
	29009	Kenilworth Hamilton	05967	47884	92	9			x					
	29011	Burlington/Leeds Hamilton	05954	47905	79	5			x					
	29012	Burlington-Wellington Hamilton	05931	47914	84	4			x					
	29015	Merrick St. Hamilton	05917	47900	92	17			x					
	29017	Chatham-Frid Hamilton	05898	47896	99	5			x					
	29025	Barton-Wentworth Hamilton	05939	47900	92	4	x	x	x	x	x		x	
	29067	450 Hughson St. Hamilton	05925	47913	84	5			x					
	CEN- TRAL	31001	67 College St. 5th Floor Toronto	06300	48352	104	20		x	x	x	x	x	x
31049		Mission, 381 Yonge Street, Toronto	06304	48351	91	4					x			
31086		15 Breadalbane Toronto	06302	48355	104	4		x		x	x	x	x	
31090		67 College St. 2nd Floor, Toronto	06300	48352	104	4					x			
31104		26 Breadalbane Toronto API	06302	48356	104	15		x	x	x	x	x	x	
31105		Sherbourne/Wilton Toronto	06317	48338	76	5		x	x	x	x		x	
31120		Junction Triangle Perth Ave. Toronto	06248	48344	113	9		x	x	x	x		x	
33003		Lawrence-Kennedy Scarborough	06389	48452	168	3		x	x	x	x	x	x	
33019		Met. Branch, Scar. Bluffs, Scarborough	06422	48411	152	3		x	x					
34002		Science Centre Don Mills Rd. North York	06338	48419	107	9		x	x	x	x	x	x	
34007		Bathurst-Wilson North York	06261	48437	214	2		x	x		x	x	x	
35003		Elmcrest Rd. Etobicoke	06142	48338	152	4		x	x	x	x	x	x	
35005		Queensway Hospital Etobicoke	06149	48293	107	9		x	x					
35008		22-36th St. Etobicoke	06190	48281	92	2			x					
35033		Evans-Arnold Etobicoke	06192	48302	107	3		x	x	x	x	x	x	
35050		MOE Lab. Resources Road Etobicoke	06175	48405	152	18		x	x					
44008		Hwy. 2/North Shore Blvd. E. Burlington	05972	47964	270	17		x	x	x			x	
44015		Bronte Rd./Woburn Cres. Oakville	06031	48059	91	5	x	x	x	x	x	x	x	
45024		206 Eulalie St. Oshawa	06723	48623	101	1			x					
45025		Ritson Rd./Olive Ave. Oshawa	06724	48624	107	4		x	x	x	x		x	
46025		Public Library Mississauga	06115	48257	137	5			x					
46033		Fire Hall Bramalea	06053	48398	198	4			x					
46100		Public School Green Glade Road, Mississauga	06124	48187	92	11		x	x					

Table 1 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TRS	POLLUTANT MONITORED					
			EAST	NORTH				SO ₂	COH	O ₃	CO	HC	NO _x
CENTRAL	46110	Queensway West/ Hurontario St.											
	47035	Mississauga M. of A., 509 Victoria St. E.	06122	48249	101	5		x	x	x	x		x
	48002	Alliston MTC Yard, Hwy. 47	05918	48898	183	4				x			
	49010	Stouffville Hwy. 117/Paint Lake Rd.	06391	48694	259	4		x	x	x			
	59006	Dorset City Hall 500 George St. Peterborough	06624	50096	323	3				x			
			07137	49095	198	18		x	x				
SOUTH EAST	51001	McDonald Gdns. Ottawa	04471	50312	61	4		x	x	x	x		x
	51038	General Hospital 342 McGill Hawkesbury	05300	50535	46	15		x					
	52020	Churchill Park Napier St., Kingston	03795	48986	82	5		x	x				
	56051	Memorial Park Cornwall	05208	49846	61	4	x	x	x	x	x		x
	56068	435 Second St. W. Cornwall	05205	49845	66	6	x						
NORTH WEST	61010	Lassie/Dickenson Roads											
	61026	Balmertown 56 King St. Dryden	04480	56670	381	3		x					
	62030	Portage/Church Fort Frances	05117	55140	366	5	x						
	62032	Cemetery, Colonization Road Fort Frances	04708	53838	336	4	x						
	63022	Hospital 35 Algoma St. N. Thunder Bay	04697	53841	336	5	x						
	63040	435 James Street Thunder Bay	03356	53672	223	22		x	x				
	63046	Montreal St. Thunder Bay	03302	53607	189	15		x	x	x			
	63084	Recreation Centre Red Rock	03298	53584	191	15	x						
			04080	54216	251	7	x						
NORTH EAST	71001	29 Hillcrest Ave. Wawa	06655	53186	303	4		x					
	71049	Land Reg. Office Queen St. Sault Ste. Marie	07047	51543	182	6		x		x			
	71057	Michipicoten Ave. Lot 38 Town of Mission	06625	53110	198	4		x		x			
	71058	Sir James Dunn Public School Wawa	06663	53180	303	10		x					
	71059	Carl M. Beck Public School Wawa	06661	53181	243	10		x					
	72063	Municipal Garage Smooth Rock Falls	04537	54586	231	10	x						
	75010	OPP Station North Bay	06197	51305	212	4		x					
	77001	Penage Sudbury Airshed	04730	51250	275	3		x					
	77009	Burwash Sudbury Airshed	05144	51228	227	3		x					

Table 1 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TRS	POLLUTANT MONITORED					
			EAST	NORTH				SO ₂	COH	O ₃	CO	HC	NO _x
NORTH-EAST	77010	Callum Sudbury Airshed	05270	51525	275	3		x					
	77012	Skead Sudbury Airshed	05186	51678	272	3		x					
	77013	Hanmer Sudbury Airshed	05041	51663	288	3		x					
	77014	Rayside Sudbury Airshed	04934	51615	275	3		x					
	77016	Ash Street Water Tank Sudbury	04994	51486	290	3		x	x	x	x		x
	77018	St. Charles Sudbury Airshed	05449	51343	227	3		x					
	77023	Happy Valley Falconbridge	05146	51564	288	5		x					
	77028	Government/Edward Coniston	05118	51480	242	5		x	x				
	77065	Falconbridge Rd., Garson Sudbury District	05109	51559	288	5		x					
	77066	Temagami Sudbury Airshed	05704	52022	294	5		x					
	77067	Chiniguchi Sudbury Airshed	05264	52013	315	5		x					
	77075	Kennedy St. New Sudbury	05044	51520	261	5		x	x				
	77092	Laurent. Hosp. 41 Ramsey Lake Rd. Sudbury	05004	51459	259	12		x					
	77096	Long Lake Rd. Sudbury, Villa Lgyola	04992	51387	275	4		x					
NEMP	22901	100 M S. Hwy 59 Long Point Prov. Pk.	05502	47138	174	4		x	x	x	x		x
	22902	Tyneside/Chippewa Rd. Binbrook West	05914	47746	213	5		x	x	x	x		x
	22903	Cheapside Rd./Walpole Conc. 5	05821	47472	206	4	x					x	
	22904	Nanticoke Walpole South PS Sandusk Rd.	05794	47434	198	4	x					x	
	22905	Nanticoke Nanticoke Rd./Walpole Conc. 5	05744	47456	198	4	x					x	
	22906	Nanticoke Sandusk Rd.	05787	47458	649	12							
		Btwn. Walpole Conc. 4/5 Sandusk											
	22907	Nanticoke Village WNW 03	05752	47398	186		x						

Table 2 Stations with Hi-Volume Sampling for Suspended Particulate Matter
(Pollutant data collected for 24-hour period)

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES			
				EAST	NORTH				Pb(XRF)	METALS	SO ₄ ²⁻ /NO ₃ ⁻	
SOUTH-WEST	10015	PUC Bldg. 64 West St. Goderich	A6	04425	48434	213	6	x				
	11001	35 Thomas St. St. Marys	A6	04879	47884	305	3	x				
	12002	City Hall, 44 Windsor Av. Windsor	AN6	03323	46867	183	17	x	x	x		x

Table 2 – Continued ...

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES UTM GRID		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES		
				EAST	NORTH				Pb(XRF)	METALS	SO ₄ ²⁻ /NO ₃ ⁻
SOUTH WEST	12005	7730 Riverside Dr. W. Windsor	A6	03395	46890	174	7	x		x	x
	12008	467 University Ave. W. Windsor	A1	03316	46867	183	9	x	x	x	x
	12009	9725 Riverside Dr. E. Little River	A6	03413	46888	180	2	x	x		x
	12010	Tecumseh Sewage Stn. Manning Road Windsor	A6	03460	46875	180	1	x		x	x
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	A6	03358	46874	183	8	x		x	x
	12014	University Met. Stn. College/Calif. St. Windsor	A6	03304	46849	183	3	x		x	x
	12015	Sewage Plant Hwy 18/Prospect Windsor	A6	03283	46833	175	6	x		x	x
	12016	College/South St. Windsor	A6	03290	46841	183	4	x			
	12032	Morton Dock Bedford/Ojibway Windsor	A6	03271	46817	175	4	x	x		x
	12036	1802 George St. Windsor	A6	03367	48658	186	5	x			
	12037	3225 California St. Windsor	A6	03327	46816	183	5	x			
	12039	Dougall/E.C. Row W. Windsor	A6	03337	46821	195	5	x			
	12052	Simone 368 Texas Road Amherstburg	A6	03267	46658	180	4	x			
	12053	415 Front St. Amherstburg	A6	03253	46657	187	10	x			
	13003	Post Office 10 Center St. Chatham	AN6	04024	46952	156	12	x		x	x
	13022	RR #3 NNW of House Blenheim	AN6	04135	46853	198	1	x		x	x
	13023	RR #1 Behind The Barn Blenheim	A6	04138	46838	198	1	x		x	x
	13024	Jackson Farm Blenheim	A6	04127	46840	198	1	x		x	x
	13025	RR #2 Behind the Barn Merlin	A6	04120	46486	198	1	x		x	x
	14001	General Hospital 220 Minton St. Sarnia	AN6	03860	47587	183	17	x		x	x
	14016	Opposite Lambton GS Hwy 40 Courtright	A6/1	03793	47397	183	1	x		x	x
	14030	RR #1 West of the House Corunna	A6	03949	47486	200	1	x		x	x
	14031	RR #1 West Side of Barn Mooretown	A6	03938	47461	200	1	x		x	x
	14054	Sarnia Yacht Club Port Edward Sarnia	A6	03846	47617	181	5	x	x		x
	14057	Briarwood Rec. Centre Hwy. 7, Sarnia	A6	03926	47586	183	9	x			
	14059	St. Clair Blvd/Hwy 40 Corunna	AN6	03813	47481	192	4	x			

Table 2 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	Pb(XRF)	ANALYSES	
				EAST	NORTH					METALS	SO ₄ ²⁻ /NO ₃ ⁻
SOUTH-WEST	14064	Centennial Park Front St/CN Tracks									
		Sarnia	A6	03854	47596	192	4	x	x		x
	14151	St. Clair River David/Front St.									
		Sarnia	A6	03852	47588	182	4	x			x
	14904	East Sombra P.S.									
		Wilkesport	A6	03892	47285	190	3	x			
	15001	Western Fair Grounds King/Rectory									
		London	A6	04818	47595	259	4	x	x	x	x
	15003	362 Dundas St.									
		London	AN6	04801	47590	277	17	x	x		x
	15006	BP Station 1009 Talbot St.									
		St. Thomas	S6	04856	47361	229	4	x			
	15007	Fern Ford 1012 Talbot St.									
		St. Thomas	S6	04857	47360	229	9	x			
WEST-CENTRAL	17006	St. Anthony's SS Hwy 2									
		Beachville	S6	05132	47696	302	5	x			
	17019	1401 Parkinson E. Woodstock									
		Selkirk	SN6	05238	47747	305	12	x	x		
	22031		A6	05871	47432	183	3	x			
	22056	Port Dover	AN6	05641	47383	190	4	x			
	22069	Sandusk	A6	05788	47457	206	4	x			
	22071	Experimental Farm Simcoe									
			A6	05597	47449	236	1	x			x
	22086	Cheapside Rd. 3 km S. of Hwy 3									
		Nanticoke	A6	05821	47472	206	1	x			x
	22087	Jarvis Community Centre, James Street									
		Jarvis	A6	05724	47481	180	4	x			
	26029	Edna/Frederick St.									
		Kitchener	A6	05427	48116	325	4	x	x		x
	26035	Uniroyal 149 Strange St.									
		Kitchener	S6	05396	48109	335	6	x			
	27008	71 King St.									
		St. Catharines	A6	06425	47797	108	12	x			x
	27009	Norton/Portage									
		Chippawa	S6	06581	47693	183	4	x			
	27014	Stanley/Chippawa Pkwy, Chippawa									
			AN6	06562	47679	206	4	x			
	27030	Killaly E/James Port Colborne									
			S6	06444	47501	180	5	x		x	
	27037	North/Geneva St.									
		St. Catharines	A6	06431	47805	106	5	x	x		x
	27045	337 Alberta at Devon St.									
		Welland	S6	06433	47587	180	1	x			
	27047	Davis/Frazer Port Colborne									
			S6	06435	47497	180	3	x		x	
	27048	Niagara Public Works Dominion Road									
		Fort Erie	A6	06670	47500	175	2	x			x
	27049	Murray/Buchanan Ave. Niagara Falls									
			AN6	06561	47716	195	5	x	x		x
	27050	4057 Victoria Ave. Niagara Falls									
			S6	06567	47752	175	4	x			
	28024	95 Inkerman St. Guelph									
			SN6	05597	48203	330	1	x		x	
	28025	Farquhar/Wyndham St. Guelph									
			A6	05609	48213	320	9	x	x		x
	28026	448 College W. Guelph									
			S6	05597	48184	325	1	x			

Table 2 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES		
				UTM GRID EAST	UTM GRID NORTH				Pb(XRF)	METALS	SO ₄ ²⁻ /NO ₃ ⁻
WEST CENTRAL	28027	Hanlon Expwy/Speed River, Guelph	S6	05594	48190	300	6	x			
	29001	Hughson/Hunter Hamilton	AN6	05918	47894	99	9	x		x	x
	29007	City Hall Hamilton	AN6	05914	47895	107	46	x			
	29008	North Park Hamilton	SN1	05984	47927	79	4	x	x	x	x
	29009	Kenilworth Hamilton	AN6	05967	47884	91	5	x			
	29011	Burlington/Leeds Hamilton	S6	05954	47905	79	5	x		x	x
	29012	Burlington/Wellington Hamilton	AN6	05931	47914	84	7	x		x	x
	29017	Chatham/Frid Hamilton	A6	05898	47896	99	5	x	x	x	x
	29025	Barton/Wentworth Hamilton	SN1	05939	47900	91	4	x	x	x	x
	29067	450 Hughson St. N. Hamilton	AN6	05925	47913	84	5	x		x	
	29085	Upper Wellington/Inverness Hamilton	A6	05921	47880	195	5	x		x	x
	29087	405 Cumberland Ave. Hamilton	A6	05946	47882	95	4	x			x
	29089	Barton/Nash Hamilton	A6	06000	47879	85	6	x			
	29090	Westdale Library Hamilton	A6	05890	47903	100	5	x			
CENTRAL	31001	67 College St. 5th Flr. Toronto	AN1	06300	48352	104	20	x	x		x
	31018	35 Bathurst St. Toronto	S1	06289	48332	84	6	x	x	x	
	31026	360 Christie St. Toronto	A1	06272	48367	126	6	x			x
	31058	Mosley/Leslie St. Toronto	SN1	06346	48353	76	5	x	x	x	
	31064	17 Berkshire Ave. Toronto	SN1	06345	48353	77	1	x	x	x	
	31065	633 Eastern Ave. Toronto	SN1	06344	48351	79	12	x	x	x	
	31079	Fire Hall 1285 Dufferin St. Toronto	SN1	06259	48359	122	10	x	x		
	31082	Works Dept. 138 Hamilton Ave. Toronto	SN1	06325	48354	91	4	x	x		
	31084	Maydwell Mfg. 65 Saulter St. Toronto	S1	06333	48351	85	6	x	x		
	31085	Tecumseth/Niagara St. Toronto	S1	06287	48330	84	6	x	x		
	31086	15 Breadalbane Toronto	A1	06302	48355	104	4	x	x		
	31088	880 Bay St. Toronto	AN1	06301	48355	104	18	x			
	31099	Pal Elec., Pape Ave. Toronto	S1	06342	48352	76	5	x	x	x	
	31104	26 Breadalbane Toronto	AN1	06302	48356	104	12	x	x	x	x
	31105	Sherbourne/Wilton St. Toronto	AN3	06317	48338	76	5	x	x		x
	31120	Junction Triangle, Perth Ave. Toronto	SN3	06248	48344	116	11	x	x	x	x
	33003	Lawrence/Kennedy Scarborough	A3	06389	48451	160	1	x	x	x	x

Table 2 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES		
				EAST	NORTH				Pb(XRF)	METALS	SO ₄ ⁻² /NO ₃ ⁻
CENTRAL	33019	Met. Branch, Scarborough Buffs,									
	34002	Scarborough Science Centre 770 Don Mills Rd.	A3	06422	48411	152	1	x	x		x
	34007	North York Bathurst/Wilson	A3	06338	48419	107	8	x	x	x	x
	35003	North York Elmcrest Rd.	A3	06259	48435	183	7	x	x		x
	35005	Etobicoke Queensway Hospital	A3	06142	48338	152	1	x	x	x	x
	35033	Etobicoke Evans/Arnold Ave.	AN3	06159	48293	107	15	x			x
	35037	Etobicoke 3050 Lakeshore Blvd W.	A3	06192	48302	107	1	x	x	x	x
	35050	Etobicoke MOE Lab.	A1	06201	48285	88	6	x	x	x	x
	35051	Resources Rd. Etobicoke	AN3	06175	48405	152	20	x			
	44008	Radiation Lab, Resources Rd., Etobicoke	AN1	06175	48403	146	15	x			
	44015	Hwy. 2/North Shore Blvd. E. Burlington	A3	05972	47964	270	4	x			x
	45001	Bronte Rd./Woburn Cres. Oakville	S3	06031	48059	91	1	x	x		x
	45003	Pickering Fire Hall Pickering	S1	06551	48548	91	1	x		x	x
	45004	McDonald PS Pickering	S1	06554	48538	91	7	x			
	45005	O'Sullivan, Station Rd. Pickering	S1	06563	48545	91	1	x			
	45006	Frenchman's Bay Sewage Pickering	S1	06543	48526	76	1	x			
	45007	Lakeshore Park Sewage Pickering	S1	06602	48538	81	1	x			
	45008	Ajax-Pickering Hospital Pickering	SN1	06596	48555	91	17	x			
	45011	Dufferin Creek Sewage Plant Pickering	S1	06565	48533	91	3	x			
	45025	Public Library Oshawa	AN6	06714	48623	114	13	x			x
	46025	Ritson Rd/Olive Ave. Oshawa	A3	06727	48618	104	5	x	x		x
	46033	Mississauga Public Library Mississauga	A6	06115	48257	137	7	x		x	x
	46045	Bramalea Fire Hall Bramalea	A6	06053	48398	198	5	x			x
	46046	2365 Dixie Rd. Mississauga	S1	06148	48288	113	7	x	x		
	46110	2360 Dixie Rd. Mississauga	S1	06147	48286	111	14	x	x		
	47019	Queensway W/ Hurontario St. Mississauga	A3	06122	48249	101	1	x	x		x
	48002	Post Office 17-25 Peter St. N. Orillia	A6	06255	49406	229	12	x			x
		MTC Yard #9, Hwy 47 Stouffville	A6	06391	48694	259	1	x			

Table 2 – Continued ...

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES		
				UTM GRID EAST	UTM GRID NORTH				Pb(XRF)	METALS	SO ₄ ²⁻ /NO ₃ ⁻
CENTRAL	58027	51 Shuter St. Port Hope	S1	07177	48694	84	5	x			x
	58028	2 Choate St. Port Hope	S1	07168	48689	94	5	x			x
	58029	66 Queen St. Port Hope	S1	07172	48695	91	5	x			x
	59006	City Hall 500 George St. Peterborough	AN3	07137	49095	198	15	x	x	x	x
SOUTH-EAST	51001	McDonald Gdns Rideau/Wurtemberg St. Ottawa	A6	04471	50312	84	4	x	x		x
	51018	55 Queen St. Ottawa	A6	04454	50299	84	30	x			x
	52017	106 Clarence St. Kingston	AN6	03815	48984	82	12	x			x
	54013	Post Office Bldg. Belleville	A6	03095	48926	98	8	x		x	x
	56006	4 Montreal Rd. Cornwall	A6	05223	49848	59	9	x			x
	56015	General Hospital Brockville	AN6	04458	49383	99	20	x	x		x
SOUTH-EAST	56051	Memorial Park Cornwall	A6	05208	49846	53	4	x	x		x
NORTH-WEST	62013	Weather Station Atikokan	A6	06030	54008	366	1	x			
	62030	Portage/Church St. Fort Frances	S6	04708	53838	335	4	x			
	62032	Cemetery, Coloni- zation Rd. W. Fort Frances	A6	04697	53841	335	5	x			
	63005	Hospital Archibald/Arthur Thunder Bay	AN6	03335	53608	190	24	x	x	x	x
	63012	Dawson Ct./ Algoma St. N. Thunder Bay	A6	03372	53686	213	9	x			
	63022	Hospital 35 Algoma St. N. Thunder Bay	AN6	03356	53672	222	22	x	x	x	x
	63040	435 James St. S. Thunder Bay	A6	03302	53607	189	15	x	x		x
	63046	Can Car Bldg. Montreal St. Thunder Bay	S6	03298	53584	190	15	x			
	63052	Trnst Maint. Bldg. William Rd. Thunder Bay	A6	03729	53647	186	9	x			
	71020	Police Stn. Hillside Dr. N. Elliot Lake	A6	03729	51379	351	3	x			
	71022	Sault College, Queens St. Sault Ste. Marie	A6	07029	51550	183	5	x	x	x	x
NORTH-EAST	71023	Hydro Pole Quirke Townsite, No. 1 Elliot Lake	A6	03742	51517	388	4	x			
	71042	Bonney St. Pumphouse Sault Ste. Marie	S6	07011	51555	190	1	x		x	x
	71049	Land Reg. Office. Queen St. Sault Ste. Marie	A6	07047	51543	183	6	x	x	x	x
	71053	Denison Townsite Elliot Lake	S6	03766	51504	409	2	x			
	71054	Nordic Townsite Elliot Lake	A6	03788	51372	412	2	x			

Table 2 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	SURVEY TYPE	COORDINATES		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	TSP	ANALYSES		
				UTM GRID EAST	UTM GRID NORTH				Pb(XRF)	METALS	SO ₄ ⁻² /NO ₃ ⁻
NORTH-EAST	71061	Esler Lake Camp	A6	03735	51500	396	4	x			
	71063	Stollery Lake/Trailer Park	A6	03735	51490	381	3	x			
	75010	OPP Station North Bay	A6	06197	51305	212	4	x		x	x
	77016	Ash Street Water Tank Sudbury	A6	04994	51486	290	3	x	x	x	x
	77026	19 Lisgar St. Sudbury	A6	05006	51485	273	14	x	x	x	x
	77029	Post Office Spruce/Barber St. Espanola	A6	04405	51235	212	6	x			
	77070	Nickel St. Pump House Copper Cliff	S6	04950	51462	282	5	x		x	x
	77076	Post Office Falconbridge	S6	05144	51577	290	5	x		x	x
NEMP	22902	Tyneside/Chippewa Rd. Binbrooke West	A6	05914	47746	213	5	x			
	22904	Walpole South PS Sandusk Rd., Nanticoke	A6	05794	47434	198	4	x			
	22951	Walpole Con. 11/ Sandusk Rd. Hagersville	A6	05768	47548	221	2	x			
	22952	100 M SE Lakeshore Rd. Peacock Prov. Park	A6	05822	47388	185	2	x			
	22953	Waterford Conc. 2/ E. Quarterline Dogs Nest	S3	05702	47396	197	2	x			
	22954	E. Quart. Line/ Waterford Conc. 13 Villa Nova	A6	05654	47535	229	2	x			
	22955	Hald-Norf Rd. 8/ Cayuga Conc. 2 Rainham Ctr.	A6	05943	47441	191	2	x			
	22956	Hald-Norf Rd. 17/ H-N Rd. 32 Canfield S.	A6	06026	47527	183	2	x			
	22957	Fisherville/ Indian Line Rd. Fisherville	A6	05886	47509	206	1	x			
	22958	H-N Rd. 63/ 5 Km E H-N Rd. 14 Canborough E.	A6	06109	47607	181	2	x			
	22959	Hwy. 59 Big Creek Wildlife Reserve	A6	05449	47165	173	2	x			
	22960	McKenzie Rd./ H-N Rd. NN Dufferin North	A6	05839	47600	215	2	x			
	22961	Nanticoke Rd./Walpole Con. 2	S3	05758	47412	190	3	x			
	22963	Nanticoke North NNW 6 Stelco North	S3	05838	45323	198	2	x			

LEGEND

Survey Type:

- A — Ambient survey for general air quality
- S — Source-specific survey
- N — Station does not conform to Canadian EPS siting criteria
- 6 — Ambient particulate levels measured every 6 days
- 3 — Ambient particulate levels measured every 3 days
- 1 — Ambient particulate levels measured daily

Analysis:

TSP: Filter analyzed for total suspended particulate matter

Pb(XRF): Filter analyzed for Lead by X-Ray Fluorescence method

Metals: Filter analyzed for one or more of the following metals by atomic adsorption or induced coupled plasma methods: lead, iron, copper, cadmium, chromium, zinc, vanadium, nickel, manganese.

SO₄²⁻/NO₃⁻: Filter analyzed for sulphate and nitrate ions.

Table 3 **Criteria for Desirable Air Quality**
(per O. Reg. 872/74)

NAME OF CONTAMINANT	UNIT OF MEASUREMENT	AVERAGE AMOUNT OF CONCENTRATION	PERIOD OF TIME	APPROXIMATE EQUIV. AT 10°C AND 101.2 KPa PRESSURE
Carbon Monoxide	Parts of carbon monoxide per one million parts of air by volume	30	1 hour	36,200 ug/m ³
		13	8 hours	15,700 ug/m ³
Nitrogen Dioxide	Parts of nitrogen dioxide per one million parts of air by volume	0.20	1 hour	400 ug/m ³
		0.10	24 hours	200 ug/m ³
Ozone	Parts of ozone per one billion parts of air by volume	80	1 hour	165 ug/m ³
Soiling	Coefficient of Haze per 1000 feet of air	1.0	24 hours	-
		0.5	1 year	-
Sulphur Dioxide	Parts of sulphur dioxide per one million parts of air by volume	0.25	1 hour	690 ug/m ³
		0.10	24 hours	275 ug/m ³
		0.02	1 year	55 ug/m ³
Cadmium	Micrograms of cadmium per cubic metre of air	2.0	24 hours	
Chromium	Micrograms of chromium per cubic metre of air	1.5	24 hours	
Copper	Micrograms of copper per cubic metre of air	50.0	24 hours	
Lead	Micrograms of lead per cubic metre of air	5.0	24 hours	
Manganese	Micrograms of manganese per cubic metre of air	50.0	24 hours	
Nickel	Micrograms of nickel per cubic metre of air	2.0	24 hours	
Total Suspended Particulate Matter	Micrograms of total suspended particulate matter per cubic metre of air	120	24 hours	
		60 (geometric mean)	1 year	
Vanadium	Micrograms of vanadium per cubic metre of air	2.0	24 hours	

Table 4 **Summary of Data: Sulphur Dioxide (all values in p.p.m.)**

Ontario Criteria - 1 Hour Average: 0.25 p.p.m.; 24-Hour Average: 0.10 p.p.m.; 1 Year Average: 0.02 p.p.m.
INS - Indicates insufficient sample size to apply 1 Year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.	1-YEAR
SOUTH-WEST	12008	467 University Ave. W Windsor	358	.000	.000	.003	.009	.026	.067	.012	.27	.05	1	NIL	NIL
	12013	3665 Wyandotte St. E. Windsor	320	.000	.000	.000	.006	.017	.049	.008	.34	.05	1	NIL	NIL
	12016	College/South St. Windsor	353	.000	.000	.000	.007	.021	.052	.009	.14	.06	NIL	NIL	NIL
	12032	Morton Dock Bedford/Ojibway Windsor	354	.000	.000	.003	.008	.020	.048	.011	.19	.03	NIL	NIL	NIL

Table 4 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.	1-YEAR
SOUTH-WEST	14004	Hydro SS Concession 14/15													
		Courtright	360	.000	.000	.000	.000	.007	.043	.003	.22	.03	NIL	NIL	NIL
	14016	Lambton GS Hwy 40													
		Courtright	343	.000	.000	.000	.000	.010	.057	.005	.16	.04	NIL	NIL	NIL
	14062	242 Indian Rd. South Sarnia	363	.000	.000	.000	.005	.021	.069	.009	.43	.05	3	NIL	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	363	.000	.000	.003	.008	.028	.118	.014	.24	.10	NIL	NIL	NIL
	14904	East Sombra P.S. Wilkesport	96	.000	.000	.000	.000	.007	.029	.003	.14	.04	NIL	NIL	INS
	15001	Western Fair Grounds King/Rectory													
		London	355	.000	.000	.003	.007	.015	.031	.009	.08	.04	NIL	NIL	NIL
WEST CENTRAL	18007	Concession Rd. 2, Lot A Tiverton	341	.000	.000	.000	.000	.007	.022	.003	.09	.04	NIL	NIL	NIL
	22071	Experimental Farm Simcoe	337	.000	.000	.000	.000	.009	.035	.004	.21	.04	NIL	NIL	NIL
	22086	Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke	340	.000	.000	.000	.000	.009	.048	.005	.28	.05	3	NIL	NIL
NEMP	22901	100 M S. Hwy 59 Long Point Prov. Park	304	.000	.000	.000	.003	.009	.043	.006	.20	.06	NIL	NIL	NIL
	22902	Tyneside/Chippewa Rd. Binbrooke West	336	.000	.000	.000	.003	.010	.046	.006	.30	.05	1	NIL	NIL
WEST CENTRAL	26029	Edna/Frederick St. Kitchener	336	.000	.000	.000	.000	.008	.024	.003	.08	.02	NIL	NIL	NIL
	27037	North/Geneva St. St. Catharines	358	.000	.000	.000	.004	.015	.044	.007	.14	.04	NIL	NIL	NIL
	27042	Niagara Falls Rd./Ontario St.													
		Thorold	317	.000	.000	.008	.026	.082	.418	.040	1.37	.39	253	31	1
	27046	Public Works 200 M S. of Beaverdam Rd.													
		Thorold	305	.000	.000	.000	.003	.015	.070	.007	.53	.07	2	NIL	NIL
	27048	Niagara Public Works Dominion Rd.													
		Fort Erie	271	.000	.000	.003	.008	.018	.045	.010	.12	.06	NIL	NIL	NIL
	27049	Murray/Buchanan Ave. Niagara Falls	365	.000	.000	.000	.000	.009	.044	.004	.10	.06	NIL	NIL	NIL
	27051	Holy Trinity Church Norton/Portage													
		Chippawa	286	.000	.004	.013	.026	.067	.153	.029	.28	.12	2	3	1
CENTRAL	28025	Farquhar/Wyndham St. Guelph	312	.000	.000	.000	.000	.007	.021	.003	.16	.03	NIL	NIL	NIL
	29008	North Park Hamilton	354	.000	.000	.004	.010	.033	.073	.014	.12	.07	NIL	NIL	NIL
	29025	Barton/Wentworth Hamilton	365	.000	.000	.002	.008	.024	.060	.010	.14	.06	NIL	NIL	NIL
	31001	67 College St. 5th Flr Toronto	161	.000	.000	.000	.006	.020	.055	.009	.21	.06	NIL	NIL	INS
	31086	15 Breadalbane Toronto	82	.001	.004	.008	.014	.026	.049	.016	.09	.04	NIL	NIL	INS
	31104	26 Breadalbane Toronto	194	.000	.000	.000	.006	.017	.054	.008	.10	.06	NIL	NIL	INS
	31105	Sherbourne/Wilton St. Toronto	363	.000	.000	.000	.001	.016	.054	.006	.25	.09	NIL	NIL	NIL
	31120	Junction Triangle Perth Ave. Toronto	274	.000	.000	.000	.006	.014	.039	.007	.09	.04	NIL	NIL	NIL
	33003	Lawrence/Kennedy Scarborough	359	.000	.000	.000	.005	.016	.055	.007	.15	.09	NIL	NIL	NIL
	33019	Met Branch Scarborough Bluffs Scarborough	343	.000	.000	.000	.000	.007	.029	.003	.18	.05	NIL	NIL	NIL

Table 4 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.	1-YEAR
CENTRAL	34002	Science Centre 770 Don Mills Rd. North York	331	.000	.000	.004	.008	.017	.045	.010	.22	.07	NIL	NIL	NIL
	34007	Bathurst/Wilson North York	352	.000	.000	.002	.008	.020	.052	.010	.44	.06	2	NIL	NIL
	35003	Elmcrest Rd. Etobicoke	278	.000	.000	.000	.004	.013	.039	.006	.20	.04	NIL	NIL	NIL
	35005	Queensway Hospital Etobicoke	316	.000	.000	.000	.006	.015	.039	.008	.20	.04	NIL	NIL	NIL
	35033	Evans/Arnold Ave. Etobicoke	313	.000	.000	.000	.002	.010	.040	.005	.10	.05	NIL	NIL	NIL
	35050	MOE Lab Resources Rd. Etobicoke	347	.000	.000	.005	.009	.020	.058	.012	.17	.06	NIL	NIL	NIL
	44008	Hwy 2/ North Shore Blvd. E. Burlington	325	.000	.000	.000	.005	.012	.036	.007	.07	.04	NIL	NIL	NIL
	44015	Bronte Rd./Woburn Cres. Oakville	353	.000	.000	.000	.000	.011	.048	.005	.23	.06	NIL	NIL	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	332	.000	.000	.000	.000	.009	.036	.004	.16	.06	NIL	NIL	NIL
	46100	Public School Green Glade Rd. Mississauga	358	.000	.000	.000	.003	.011	.039	.006	.10	.04	NIL	NIL	NIL
	46110	Queensway West/ Hurontario St. Mississauga	318	.000	.000	.000	.003	.010	.038	.006	.49	.08	3	NIL	NIL
	48002	MTC Yard #9 Hwy 47 Stouffville	320	.000	.000	.000	.000	.007	.027	.003	.09	.04	NIL	NIL	NIL
	59006	City Hall 500 George St. Peterborough	304	.000	.000	.000	.000	.007	.029	.003	.06	.04	NIL	NIL	NIL
SOUTH-EAST	51001	McDonald Garden Rideau/Wurtemberg St. Ottawa	360	.000	.000	.000	.000	.013	.044	.005	.22	.06	NIL	NIL	NIL
	51038	General Hospital 342 McGill Hawkesbury	290	.000	.000	.001	.011	.047	.217	.020	.60	.15	43	4	NIL
	52020	Churchill Park Napier St. Kingston	282	.000	.000	.000	.000	.000	.008	.000	.11	.01	NIL	NIL	NIL
	56051	Memorial Park York/Third St. Cornwall	363	.000	.000	.000	.007	.022	.076	.010	.21	.05	NIL	NIL	NIL
NORTH-WEST	61010	Lassie/Dickenson Rds. Balmertown	280	.000	.000	.000	.000	.016	.275	.013	.93	.14	83	6	NIL
	63022	Hospital 35 Algoma St. N. Thunder Bay	332	.000	.000	.000	.000	.000	.009	.000	.04	.01	NIL	NIL	NIL
	63040	435 James St. S. Thunder Bay	361	.000	.000	.000	.000	.000	.018	.001	.23	.02	NIL	NIL	NIL
NORTH-EAST	71001	29 Hillcrest Ave. Wawa	75	.000	.000	.000	.000	.001	.216	.008	.84	.08	14	NIL	INS
	71049	Land Reg. Office Queen St. Sault Ste. Marie	296	.000	.000	.000	.000	.007	.022	.003	.07	.03	NIL	NIL	NIL
	71057	Michipicoten Ave., Lot 38 Town of Mission	291	.000	.000	.000	.000	.002	.218	.008	1.45	.29	58	2	NIL
	71058	Sir James Dunn Public School Wawa	302	.000	.000	.000	.000	.018	.132	.008	.90	.10	25	NIL	NIL
	71059	Carl M. Beck Public School Wawa	258	.000	.000	.000	.000	.002	.150	.006	1.20	.17	30	2	NIL
	75010	OPP Station North Bay	365	.000	.000	.000	.000	.002	.017	.002	.12	.02	NIL	NIL	NIL
	77001	Penage Sudbury Airshed	249	.000	.000	.000	.000	.000	.060	.003	.44	.10	6	NIL	NIL

Table 4 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.	1-YEAR
NORTH-EAST	77009	Burwash													
		Sudbury Airshed	336	.000	.000	.000	.000	.008	.079	.005	.27	.05	1	NIL	NIL
	77010	Callum													
		Sudbury Airshed	344	.000	.000	.000	.000	.007	.076	.004	.39	.07	2	NIL	NIL
	77012	Skead													
		Sudbury Airshed	362	.000	.000	.000	.000	.017	.216	.011	.91	.19	64	4	NIL
	77013	Hanmer													
		Sudbury Airshed	345	.000	.000	.000	.000	.009	.105	.006	.38	.08	9	NIL	NIL
	77014	Rayside													
		Sudbury Airshed	362	.000	.000	.000	.000	.006	.056	.004	.67	.08	5	NIL	NIL
	77016	Ash Street Water Tank													
		Sudbury	358	.000	.000	.000	.004	.019	.128	.010	.44	.09	13	NIL	NIL
	77018	St. Charles													
		Sudbury Airshed	357	.000	.000	.000	.000	.005	.034	.003	.20	.03	NIL	NIL	NIL
	77023	Happy Valley													
		Falconbridge	355	.000	.000	.000	.000	.026	.380	.019	1.39	.32	166	13	NIL
	77028	Government/Edward St.													
		Coniston	360	.000	.000	.000	.006	.018	.123	.011	.77	.09	16	NIL	NIL
	77065	Falconbridge Rd.													
		Garson													
		Sudbury District	340	.000	.000	.000	.000	.015	.120	.008	.76	.11	16	1	NIL
	77066	Temagami													
		Sudbury Airshed	279	.000	.000	.000	.000	.008	.061	.004	.18	.05	NIL	NIL	NIL
	77067	Chiniguchi													
		Sudbury Airshed	107	.000	.000	.000	.000	.008	.061	.005	.23	.04	NIL	NIL	INS
	77075	Kennedy St.													
		New Sudbury	346	.000	.000	.000	.005	.019	.115	.010	.56	.09	16	NIL	NIL
	77092	Laurentian Hospital													
		41 Ramsey Lake Rd.													
		Sudbury	358	.000	.000	.000	.000	.007	.100	.005	.74	.13	17	NIL	NIL
	77096	Long Lake Rd.													
		Villa Loyola													
		Sudbury	359	.000	.000	.000	.000	.011	.111	.007	.57	.09	20	NIL	NIL

Table 5 Summary of Data: Carbon Monoxide (all values in p.p.m.)

Ontario Criteria – 1 Hour Average: 30 p.p.m.; 8-Hour Average: 13 p.p.m.

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	8-HR.	1-HR.	8-HR.
SOUTH-WEST	12008	467 University Ave. W.												
		Windsor	360	0.0	0.0	0.4	0.9	1.8	3.9	1.1	19	10	NIL	NIL
	14064	Centennial Park												
		Front St./CN Tracks	351	0.0	0.0	0.0	0.0	0.3	2.3	0.2	9	7	NIL	NIL
NEMP	15001	Sarnia												
		Western Fair Grounds												
		King/Rectory	363	0.0	0.0	0.0	0.0	0.8	3.8	0.4	14	11	NIL	NIL
		London												
WEST CENTRAL	22901	100 M S. Hwy 59												
		Long Point Prov. Park	331	0.0	0.0	0.0	0.0	0.4	0.9	0.2	2	1	NIL	NIL
	22902	Tyneside/												
CENTRAL		Chippewa Rd.												
		Binbrooke West	360	0.0	0.0	0.0	0.0	0.0	0.9	0.1	2	2	NIL	NIL
	26029	Edna/Frederick St.												
		Kitchener	342	0.0	0.1	0.5	0.8	1.7	4.1	1.1	19	9	NIL	NIL
	27037	North/Geneva St.												
CENTRAL		St. Catharines	230	0.0	0.0	0.3	0.8	1.9	4.8	1.0	14	10	NIL	NIL
	29025	Barton/Wentworth												
		Hamilton	359	0.0	0.0	0.4	1.0	2.1	5.2	1.2	15	11	NIL	NIL
CENTRAL	31001	67 College St., 5th Flr												
		Toronto	159	0.0	0.2	0.6	1.0	1.8	3.8	1.2	8	5	NIL	NIL
	31049	Mission												
CENTRAL		381 Yonge St.												
		Toronto	352	0.6	1.7	2.6	4.0	7.7	22.9	4.3	47	27	17	40

Table 5 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	8-HR.	1-HR.	8-HR.
CENTRAL	31090	67 College St., 2nd Flr Toronto	142	3.3	4.2	4.8	5.6	7.4	11.2	5.7	22	15	NIL	1
	31104	26 Breadalbane St. Toronto	183	0.0	0.3	0.7	1.2	1.9	4.2	1.3	13	8	NIL	NIL
	31105	Sherbourne/Wilton Toronto	354	0.0	0.4	0.8	1.3	2.0	4.4	1.4	12	9	NIL	NIL
	31120	Junction Triangle Perth Ave. Toronto	237	0.0	0.2	0.6	0.9	1.8	4.8	1.2	13	11	NIL	NIL
	33003	Lawrence/Kennedy Scarborough	359	0.0	0.3	0.7	1.2	2.1	5.4	1.4	15	11	NIL	NIL
	34002	Science Centre 770 Don Mills Rd. North York	338	0.0	0.4	0.9	1.6	2.9	5.7	1.7	12	11	NIL	NIL
	34007	Bathurst/Wilson North York	365	0.0	0.4	0.8	1.4	2.7	5.5	1.6	19	10	NIL	NIL
	35003	Elmcrest Rd. Etobicoke	302	0.0	0.5	0.9	1.7	2.0	3.8	1.0	11	6	NIL	NIL
	35033	Evans/Arnold Ave. Etobicoke	359	0.2	0.9	1.5	2.0	3.0	5.4	2.1	12	10	NIL	NIL
	44015	Bronte Rd./ Woburn Cres. Oakville	322	0.3	1.2	1.6	2.2	3.3	5.6	2.3	10	7	NIL	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	363	0.2	0.8	1.4	1.9	2.8	5.5	2.0	15	10	NIL	NIL
	46110	Queensway West/ Huronario St. Mississauga	361	0.2	0.7	1.2	1.9	5.0	9.8	2.4	17	12	NIL	NIL
SOUTH EAST	51001	McDonald Garden Rideau/Wurtemburg St. Ottawa	365	0.0	0.3	0.6	0.9	1.8	3.5	1.3	9	5	NIL	NIL
	56051	Memorial Park York/Third St. Cornwall	355	0.0	0.3	0.6	0.8	1.4	3.4	1.1	12	7	NIL	NIL
NORTH EAST	77016	Ash Street Water Tank Sudbury	332	0.0	0.0	0.0	0.0	0.0	1.6	0.1	8	4	NIL	NIL

**Table 6 Summary of Data: Total Hydrocarbons (all values in p.p.m.)
No Existing Criteria**

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM	
				10	30	50	70	90	99		1-HR.	24-HR.
SOUTH-WEST	12008	467 University Ave. W. Windsor	277	1.71	1.91	20.4	22.1	26.2	39.1	2.18	8.4	4.3
	14064	Centennial Park Front St./CN Tracks Sarnia	350	1.49	1.68	1.90	2.13	2.74	4.58	2.09	8.8	4.3
	14903	Virgil LaSalle Froomfield Sarnia	85	1.67	1.80	1.99	2.22	2.84	4.37	2.20	7.2	3.4
	14904	East Sombra P.S. Wilkesport	97	1.71	1.81	1.93	2.10	2.33	2.88	2.04	4.8	2.5
	15001	Western Fair Grounds King/Rectory London	355	1.88	2.06	2.20	2.37	2.76	4.79	2.36	11.0	4.3
CENTRAL	31001	67 College St. 5th Flr Toronto	162	0.95	1.17	1.37	1.64	2.08	2.83	1.51	5.1	2.7
	31086	15 Breadalbane Toronto	84	1.94	2.04	2.15	2.31	2.68	3.68	2.30	5.4	3.0
	31104	26 Breadalbane Toronto	187	1.22	1.53	1.76	2.02	2.50	3.62	1.88	5.3	3.3

Table 6 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES		90	99	ARITH-METIC-MEAN	MAXIMUM	
						50	70				1-HR.	24-HR.
CENTRAL	33003	Lawrence/Kennedy	337	1.59	1.73	1.85	2.01	2.41	3.76	2.00	7.5	4.0
	34002	Scarborough Science Centre 770 Don Mills Rd.										
	34007	North York Bathurst/Wilson	352	1.08	1.29	1.47	1.69	2.39	4.30	1.68	6.6	3.9
	35003	North York Elmcrest Rd.	357	1.51	1.69	1.83	2.01	2.43	3.73	1.97	6.8	4.5
	35033	Etobicoke Evans/Arnold Ave.	294	1.70	1.85	1.99	2.18	2.70	4.63	2.19	12.1	3.5
	35033	Etobicoke	344	1.22	1.45	1.65	1.89	2.45	3.97	1.83	8.3	4.9
	44015	Bronte Rd./Woburn Cres. Oakville	330	1.61	1.99	2.23	2.56	3.20	4.46	1.86	18.6	4.4

Table 7 **Summary of Data: Reactive Hydrocarbons (all values are in p.p.m.)**
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES		90	99	ARITH-METIC-MEAN	MAXIMUM	
						50	70				1-HR.	24-HR.
SOUTH-WEST	12008	467 University Ave. W. Windsor	244	.16	.24	.31	.41	.59	1.10	.41	3.6	1.1
	14903	Virgil LaSalle Froomfield										
	14904	Sarnia East Sombra P.S.	83	.05	.13	.18	.31	.86	2.39	.40	5.1	1.4
	14904	Wilkesport	96	.07	.15	.20	.30	.53	.77	.31	2.9	0.7
NEMP	22903	Cheapside Rd./ Walpole Conc. 5	302	.17	.48	.65	.79	1.00	1.36	.67	3.6	1.3
	22904	Nanticoke Walpole South P.S.										
	22905	Sandusk Rd. Nanticoke	316	.24	.36	.45	.55	.74	1.00	.52	3.1	1.7
	22905	Nanticoke Rd./ Walpole Conc. 5	323	.52	.62	.72	.81	.98	1.17	.78	1.9	1.2
	22905	Nanticoke										
WEST-CENTRAL	27037	North/Geneva St. St. Catharines	205	.03	.17	.30	.47	.79	1.15	.41	2.0	1.1
	29008	North Park Hamilton										
CENTRAL	31001	67 College St. 5th Flr Toronto	89	.06	.14	.18	.25	.35	.68	.25	1.5	0.7
	31086	15 Bredalbane St. Toronto										
			81	.23	.32	.40	.53	.78	1.44	.52	2.5	1.1

Table 8 **Summary of Data: Methane (all values are in p.p.m.)**
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES		90	99	ARITH-METIC-MEAN	MAXIMUM	
						50	70				1-HR.	24-HR.
SOUTH-WEST	14903	Virgil LaSalle Froomfield	86	1.52	1.58	1.65	1.74	1.88	2.25	1.73	2.8	2.1
	14904	Sarnia East Sombra P.S.										
	14904	Wilkesport	95	1.51	1.57	1.63	1.69	1.85	2.19	1.71	3.2	2.0
NEMP	22903	Cheapside Rd./ Walpole Conc. 5 Nanticoke	313	1.29	1.36	1.42	1.48	1.59	1.82	1.48	2.5	1.8

Table 8 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES				90	99	ARITH-METIC-MEAN	MAXIMUM 1-HR.	24-HR.
NEMP	22904	Walpole South P.S. Sandusk Rd.	318	1.17	1.25	1.30	1.38	1.55	2.09	1.40	5.5	1.8		
	22905	Nanticoke Nanticoke Rd./ Walpole Conc. 5 Nanticoke												
			311	1.23	1.38	1.46	1.55	1.69	21.9	1.53	3.9	2.1		

Table 9 Summary of Data: Ozone (all values in p.p.m.)

Ontario Criteria – 1 Hour Average: 0.08 p.p.m.

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES				90	99	ARITH-METIC-MEAN	MAXIMUM 1-HR.	24-HR.	NO. OF TIMES ABOVE CRITERIA 1-HR.
SOUTH-WEST	10001	College of Agric. Tech. Huron Park	336	.006	.015	.020	.026	.045	.084	.024	.130	.083			110
	12008	467 University Ave. W. Windsor	345	.000	.005	.013	.022	.045	.084	.019	.130	.065			106
	13021	MOE Water Pump. Stn. Middle Rd. Merlin	326	.006	.014	.021	.027	.044	.079	.024	.106	.071			71
	14064	Centennial Park Front St./CN Tracks Sarnia	365	.001	.012	.019	.026	.040	.076	.021	.169	.058			67
	14118	PUC Water Pump. Stn. Hwy 21 Petrolia	339	.006	.015	.021	.026	.042	.080	.023	.132	.079			85
	14904	East Sombra P.S. Wilkesport	99	.008	.017	.026	.038	.059	.094	.031	.151	.062			69
	15001	Western Fair Grounds King/Rectory London	361	.000	.008	.016	.024	.042	.078	.020	.107	.074			66
	18007	Concession Rd. 2 Lot A Tiverton	334	.013	.022	.026	.031	.046	.086	.029	.162	.076			113
NEMP	22901	100 M S. Hwy 59 Long Point Prov. Park	316	.012	.021	.028	.036	.055	.090	.031	.129	.085			159
	22902	Tyneside/Chippewa Rd. Binbrooke West	345	.006	.016	.022	.028	.043	.075	.024	.103	.069			44
WEST-CENTRAL	22071	Experimental Farm Simcoe	336	.010	.019	.026	.033	.050	.088	.029	.111	.086			138
	26029	Edna/Frederick St. Kitchener	343	.000	.008	.015	.022	.041	.077	.019	.101	.070			68
	27037	North/Geneva St. St. Catharines	357	.002	.010	.017	.024	.041	.074	.020	.116	.072			48
	29025	Barton/Wentworth Hamilton	360	.000	.006	.013	.020	.036	.063	.016	.089	.063			15
CENTRAL	31001	67 College St., 5th Flr Toronto	161	.001	.005	.011	.018	.030	.055	.014	.113	.046			9
	31086	15 Breadalbane Toronto	90	.002	.006	.011	.016	.023	.046	.013	.081	.034			2
	31104	26 Breadalbane Toronto	198	.000	.003	.009	.018	.040	.081	.015	.105	.054			50
	31105	Sherbourne/Wilton St. Toronto	356	.000	.003	.008	.014	.025	.056	.012	.091	.044			6
	31120	Junction Triangle Perth Ave. Toronto	285	.000	.000	.005	.015	.035	.078	.012	.119	.065			56
	33003	Lawrence/Kennedy Scarborough	359	.000	.003	.009	.016	.032	.067	.013	.110	.046			23
	34002	Science Centre 770 Don Mills Rd. North York	339	.000	.003	.011	.020	.036	.076	.016	.099	.051			61
	35003	Elmcrest Rd. Etobicoke	315	.000	.003	.010	.018	.034	.072	.014	.098	.060			39

Table 9 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA 1-HR.
				10	30	50	70	90	99		1-HR.	24-HR.	
CENTRAL	35033	Evans/Arnold Ave. Etobicoke	354	.000	.001	.004	.010	.027	.066	.010	.134	.049	26
	44008	Hwy 2/ North Shore Blvd. Burlington	333	.000	.007	.014	.021	.034	.057	.016	.085	.043	1
	44015	Bronte Rd./Woburn Cres. Oakville	359	.000	.006	.014	.021	.038	.073	.017	.103	.056	44
	45025	Ritson Rd./Olive Ave. Oshawa	337	.001	.008	.016	.022	.034	.069	.018	.146	.059	37
	46110	Queensway W./ Hurontario St. Mississauga	325	.000	.004	.011	.018	.031	.064	.014	.101	.051	21
	47035	M. of A. 509 Victoria St. E. Alliston	126	.000	.009	.016	.024	.042	.074	.020	.099	.061	20
	48002	MTC Yard #9 Hwy 47 Stouffville	333	.005	.013	.018	.023	.032	.055	.019	.094	.052	7
	49010	Hwy 117/Point Lake Rd. Dorset	213	.007	.016	.022	.027	.039	.068	.024	.096	.074	13
	51001	McDonald Gardens Rideau/Wurtemberg St. Ottawa	359	.000	.006	.013	.020	.031	.054	.015	.079	.047	NIL
	56051	Memorial Park York/Third St. Cornwall	361	.005	.014	.021	.028	.040	.064	.023	.093	.060	13
NORTH-WEST	63040	435 James St. S. Thunder Bay	318	.000	.007	.014	.020	.026	.040	.014	.069	.040	NIL
NORTH-EAST	71049	Land Reg. Office Queen St. Sault Ste. Marie	141	.000	.003	.009	.018	.035	.067	.014	.084	.067	8
	71057	Michipicoten Ave. Lot 38	122	.000	.014	.024	.035	.050	.072	.026	.098	.058	20
	77016	Town of Mission Ash Street	354	.005	.010	.013	.017	.027	.054	.016	.079	.064	NIL
		Water Tank Sudbury											

**Table 10 Summary of Data: Total Reduced Sulphur (all values in p.p.b.)
No Existing Criteria**

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM	
				10	30	50	70	90	99		1-HR.	24-HR.
SOUTH-WEST	12032	Morton Dock Bedford/Ojibway Windsor	225	0.0	0.0	0.0	0.0	0.8	6.9	0.5	37	5
	14062	242 Indian Rd. S. Sarnia	356	0.0	0.0	0.0	0.0	0.9	4.0	0.4	21	4
	18007	Concession Rd. 2 Lot A, Tiverton	321	0.0	0.0	0.0	0.0	0.7	2.0	0.2	19	2
NEMP	22903	Cheapside Rd./ Walpole Conc. 5 Nanticoke	180	0.0	0.0	0.0	0.0	1.1	2.9	0.4	7	3
	22904	Walpole South P.S. Sandusk Rd. Nanticoke	333	0.0	0.0	0.0	0.0	0.6	2.6	0.3	30	4
	22905	Nanticoke Rd./ Walpole Conc. 5 Nanticoke	329	0.0	0.0	0.0	0.0	0.8	2.0	0.3	7	2
	22907	WNW 03 Nanticoke Village	281	0.0	0.0	0.0	0.0	1.1	4.8	0.5	36	9

Table 10 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM	
				10	30	50	70	90	99		1-HR.	24-HR.
WEST CENTRAL	27051	Holy Trinity Church Norton/Portage										
		Chippawa	284	0.0	0.0	0.2	5.6	35.5	152.3	12.2	435	110
	29008	North Park										
		Hamilton	263	0.0	0.0	0.0	0.8	4.6	16.1	1.6	47	14
	29025	Barton/Wentworth										
		Hamilton	351	0.0	0.0	0.0	0.3	2.9	14.3	1.3	83	13
CENTRAL	44015	Bronte Rd./ Woburn Cres.										
		Oakville	349	0.0	0.0	0.0	0.0	2.0	8.0	0.6	95	17
SOUTH-EAST	56051	Memorial Park										
		York/Third St.										
		Cornwall	360	0.0	0.0	0.0	0.7	4.6	21.6	1.8	141	20
	56068	435 Second St. W.										
		Cornwall	328	0.0	0.0	0.4	2.3	7.9	30.1	3.1	142	19
NORTH-WEST	61026	56 King St.										
		Dryden	279	0.0	0.0	0.0	0.9	13.2	91.2	5.5	190	71
	62030	Portage/Church St.										
		Fort Frances	277	0.0	0.0	0.0	3.2	35.3	170.6	12.0	279	129
	62032	Cemetery										
		Colonization Rd. W.										
		Fort Frances	271	0.0	0.0	0.0	0.1	7.9	45.9	3.1	211	28
	63046	Can-Car Bldg.										
		Montreal St.										
		Thunder Bay	340	0.0	0.0	0.0	1.5	9.3	26.4	2.8	72	17
	63084	Recreation Centre										
		Red Rock	126	0.0	0.0	0.0	0.0	24.2	144.2	8.9	349	108
NORTH-EAST	72063	Municipal Garage										
		Smooth Rock Falls	365	0.0	0.0	0.0	0.0	5.9	33.5	2.1	116	38

Table 11 Summary of Data: Nitrogen Dioxide (all values in p.p.m.)

Ontario Criteria – 1 Hour Average: 0.20 p.p.m.; 24-Hour Average: 0.10 p.p.m.

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.
SOUTH WEST	12008	467 University Ave. W.												
		Windsor	363	.009	.016	.023	.030	.045	.076	.030	.17	.09	NIL	NIL
	14064	Centennial Park												
		Front St./CN Tracks												
		Sarnia	352	.000	.003	.010	.019	.035	.059	.018	.12	.06	NIL	NIL
	14904	East Sombra P.S.												
		Wilkesport	85	.000	.000	.004	.008	.016	.036	.009	.07	.03	NIL	NIL
	15001	Western Fair Grounds												
		King/Rectory												
		London	359	.000	.004	.010	.017	.029	.049	.017	.11	.06	NIL	NIL
WEST-CENTRAL	22071	Experimental Farm												
		Simcoe	258	.000	.004	.008	.013	.020	.041	.014	.09	.05	NIL	NIL
	22086	Cheapside Rd.												
		3 Km S. of Hwy 3												
		Nanticoke	362	.000	.000	.004	.008	.016	.039	.010	.10	.05	NIL	NIL
	26029	Edna/Frederick St.												
		Kitchener	293	.003	.013	.020	.027	.039	.064	.026	.34	.11	9	1
	27037	North/Geneva St.												
		St. Catharines	344	.003	.011	.016	.022	.032	.048	.022	.29	.08	4	NIL
	29008	North Park												
		Hamilton	347	.001	.013	.021	.027	.041	.078	.027	.24	.08	3	NIL
	29025	Barton/Wentworth												
		Hamilton	365	.005	.015	.023	.031	.044	.069	.029	.15	.08	NIL	NIL
CENTRAL	31001	67 College St., 5th Flr												
		Toronto	166	.005	.015	.023	.031	.044	.066	.029	.11	.06	NIL	NIL

Table 11 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	24-HR.
CENTRAL	31086	15 Breadalbane Toronto	53	.006	.014	.021	.029	.045	.064	.028	.08	.05	NIL	NIL
	31104	26 Breadalbane Toronto	194	.003	.012	.018	.025	.039	.070	.025	.13	.07	NIL	NIL
	31105	Sherbourne/Wilton St. Toronto	365	.007	.016	.023	.030	.045	.070	.030	.12	.07	NIL	NIL
	31120	Junction Triangle Perth Ave. Toronto	184	.004	.012	.018	.025	.038	.075	.025	.14	.08	NIL	NIL
	33003	Lawrence/Kennedy Scarborough	359	.002	.011	.018	.026	.038	.068	.025	.16	.09	NIL	NIL
	34002	Science Centre 770 Don Mills Rd. North York	360	.000	.002	.006	.011	.025	.047	.014	.09	.06	NIL	NIL
	34007	Bathurst/Wilson North York	301	.001	.010	.020	.032	.053	.085	.029	.14	.08	NIL	NIL
	35003	Elmcrest Rd. Etobicoke	314	.000	.008	.015	.023	.038	.068	.022	.12	.07	NIL	NIL
	35033	Evans/Arnold Ave. Etobicoke	355	.014	.023	.029	.036	.050	.084	.036	.19	.09	NIL	NIL
	44008	Hwy 2/ North Shore Blvd. E. Burlington	324	.001	.008	.013	.019	.029	.049	.019	.11	.06	NIL	NIL
	44015	Bronte Rd./Woburn Cres. Oakville	355	.000	.007	.014	.021	.033	.052	.020	.09	.04	NIL	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	362	.000	.004	.012	.021	.035	.058	.019	.11	.06	NIL	NIL
	46110	Queensway West/ Hurontario St. Mississauga	351	.009	.016	.022	.029	.040	.064	.029	.10	.06	NIL	NIL
SOUTH-EAST	51001	McDonald Garden Rideau/Wurtemberg St. Ottawa	358	.000	.002	.008	.016	.030	.054	.016	.12	.06	NIL	NIL
	56051	Memorial Park York/Third St. Cornwall	361	.000	.000	.005	.009	.020	.045	.011	.11	.06	NIL	NIL
NORTH-EAST	77016	Ash Street Water Tank Sudbury	354	.000	.000	.000	.006	.015	.032	.007	.08	.03	NIL	NIL

Table 12 **Summary of Data: Nitric Oxide (all values in p.p.m.)**
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM	
				10	30	50	70	90	99		1-HR.	24-HR.
SOUTH-WEST	12008	467 University Ave. W. Windsor	365	.000	.000	.002	.011	.038	.152	.017	.90	.29
	14064	Centennial Park Front St./CN Tracks Sarnia	347	.000	.000	.003	.010	.028	.111	.014	.46	.11
	14904	East Sombra P.S. Wilkesport	87	.000	.000	.000	.000	.008	.020	.003	.04	.02
	15001	Western Fair Grounds King/Rectory London	357	.000	.000	.003	.011	.037	.182	.018	.71	.16
WEST-CENTRAL	22071	Experimental Farm Simcoe	249	.000	.000	.000	.000	.006	.019	.002	.06	.02
	22086	Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke	354	.000	.000	.000	.000	.000	.021	.001	.13	.03
NEMP	22901	100 M S. of Hwy 59 Long Point Prov. Park	318	.000	.000	.000	.000	.004	.017	.002	.06	.02

Table 12 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES		90	99	ARITH- METIC- MEAN	MAXIMUM	
						50	70				1-HR.	24-HR.
NEMP	22902	Tyneside/Chippewa Rd. Nanticoke	269	.000	.000	.000	.006	.014	.040	.007	.15	.06
	22906	Sandusk Rd. Btwn Walpole Conc 4/5 Sandusk	266	.000	.000	.003	.006	.010	.033	.008	.13	.03
WEST- CENTRAL	26029	Edna/Frederick St. Kitchener	242	.000	.008	.018	.046	.149	.419	.058	.95	.40
	27037	North/Geneva St. St. Catharines	320	.000	.000	.000	.001	.038	.169	.014	.69	.24
	29008	North Park Hamilton	341	.000	.005	.036	.076	.147	.280	.061	.67	.27
	29025	Barton/Wentworth Hamilton	358	.000	.000	.005	.018	.059	.200	.024	.83	.29
CENTRAL	31001	67 College St. 5th Flr Toronto	164	.000	.000	.005	.016	.047	.140	.020	.37	.15
	31086	15 Breadalbane Toronto	53	.000	.000	.006	.012	.034	.130	.017	.30	.08
	31104	26 Breadalbane Toronto	194	.000	.000	.007	.019	.052	.185	.023	.58	.24
	31105	Sherbourne/Wilton St. Toronto	364	.000	.000	.011	.035	.094	.292	.037	.84	.39
	31120	Junction Triangle Perth Ave. Toronto	179	.000	.001	.007	.016	.059	.253	.028	.87	.41
	33003	Lawrence/Kennedy Scarborough	358	.000	.000	.009	.030	.082	.277	.034	.87	.38
	34002	Science Centre 770 Don Mills Rd. North York	343	.004	.014	.025	.043	.105	.315	.050	.68	.35
	34007	Bathurst/Wilson North York	309	.000	.003	.026	.102	.228	.465	.082	.87	.46
	35003	Elmcrest Rd. Etobicoke	308	.000	.000	.000	.013	.067	.314	.026	.76	.30
	35033	Evans/Arnold Ave. Etobicoke	349	.000	.008	.035	.073	.173	.446	.070	.82	.43
	44008	Hwy 2/ North Shore Blvd. Burlington	351	.001	.007	.016	.031	.084	.273	.038	.82	.31
	44015	Bronte Rd./Woburn Cres. Oakville	354	.000	.000	.004	.011	.047	.180	.020	.60	.15
	45025	Ritson Rd./Olive Ave. Oshawa	361	.000	.000	.000	.008	.042	.180	.017	.70	.28
	46110	Queensway West/ Huronario St. Mississauga	351	.000	.000	.005	.016	.067	.260	.027	.74	.25
SOUTH- EAST	51001	McDonald Garden Rideau/Wurtemberg St. Ottawa	341	.000	.000	.000	.007	.033	.168	.015	.58	.13
	56051	Memorial Park York/Third St. Cornwall	356	.000	.000	.000	.000	.009	.115	.006	.45	.11
NORTH- EAST	77016	Ash Street Water Tank Sudbury	358	.000	.000	.000	.000	.009	.092	.006	.49	.07

Table 13 **Summary of Data: Nitrogen Oxides (all values in p.p.m.)**
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES		90	99	ARITH- METIC- MEAN	MAXIMUM	
						50	70				1-HR.	24-HR.
SOUTH- WEST	12008	467 University Ave. W. Windsor	363	.011	.021	.032	.047	.083	.208	.048	1.07	.39
	14064	Centennial Park Front St./CN Tracks Sarnia	345	.000	.008	.018	.034	.065	.151	.032	.52	.14

Table 13 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	10	30	PERCENTILES				ARITH- METIC- MEAN	MAXIMUM	
						50	70	90	99		1-HR.	24-HR.
SOUTH- WEST	14904	East Sombra P.S.	85	.000	.001	.006	.011	.025	.050	.013	.09	.05
	15001	Wilkesport Western Fair Grounds King/Rectory London										
			357	.000	.008	.018	.033	.069	.216	.035	.77	.20
WEST CENTRAL	22071	Experimental Farm	243	.000	.005	.010	.016	.027	.060	.017	.10	.05
	22086	Simcoe Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke										
			353	.000	.000	.004	.008	.018	.056	.011	.18	.07
NEMP	22901	100 M S. of Hwy 59	314	.000	.001	.005	.008	.016	.038	.010	.10	.05
	22902	Long Point Prov. Park										
	22906	Tyneside /Chippewa Rd. Binbrooke West Sandusk Rd. Btwn Walpole Con 4/5 Sandusk										
			233	.001	.004	.008	.013	.022	.058	.016	.29	.06
WEST CENTRAL	26029	Edna/Frederick St.	235	.012	.028	.045	.081	.190	.455	.085	1.01	.43
	27037	Kitchener North/Geneva St.										
	29008	St. Catharines North Park										
	29025	Hamilton Barton/Wentworth Hamilton										
			336	.003	.028	.067	.112	.183	.322	.087	.73	.32
			358	.006	.021	.036	.055	.101	.255	.054	.95	.37
CENTRAL	31001	67 College St 5th Flr	164	.007	.020	.033	.052	.091	.193	.049	.43	.19
	31086	Toronto 15 Breadalbane St.										
	31104	Toronto 26 Breadalbane	53	.010	.021	.031	.048	.079	.178	.045	.32	.12
	31105	Toronto Sherbourne/Wilton St.	194	.006	.020	.032	.048	.089	.243	.049	.67	.31
	31120	Toronto Junction Triangle Perth Ave.	364	.009	.024	.043	.071	.134	.341	.067	.93	.46
	33003	Toronto Lawrence/Kennedy	178	.007	.019	.029	.046	.099	.317	.053	1.01	.49
	34002	Scarborough Science Centre 770 Don Mills Rd.	358	.003	.017	.036	.060	.119	.327	.058	1.00	.46
	34007	North York Bathurst/Wilson	343	.011	.026	.039	.059	.123	.343	.063	.71	.37
	35003	North York Elmcrest Rd.	297	.003	.019	.056	.145	.268	.516	.110	.94	.52
	35033	Etobicoke Evans/Arnold Ave.	308	.002	.010	.021	.043	.105	.362	.049	.85	.37
	44008	Etobicoke Hwy 2/ North Shore Blvd.	346	.021	.045	.072	.110	.214	.514	.106	.96	.49
	44015	Burlington Bronte Rd./Woburn Cres.	324	.011	.022	.033	.050	.099	.305	.054	.89	.36
	45025	Oakville Ritson Rd./Olive Ave.	355	.002	.013	.024	.039	.079	.215	.041	.63	.19
	46110	Oshawa Queensway West/ Hurontario St.	361	.000	.005	.015	.035	.078	.224	.036	.80	.34
		Mississauga	351	.010	.020	.033	.052	.107	.314	.055	.80	.30
SOUTH- EAST	51001	McDonald Garden	355	.000	.003	.012	.027	.065	.207	.030	.67	.19
	56051	Rideau/Wurtemberg St. Ottawa Memorial Park York/Third St. Cornwall										
			356	.000	.001	.005	.011	.032	.166	.018	.62	.17
NORTH- EAST	77016	Ash Street Water Tank Sudbury	350	.000	.000	.002	.008	.027	.125	.013	.60	.10

Table 14

Summary of Data: Soiling Index – 1 Hour (all values are in COH's/1,000 ft.)

Ontario Criteria – 24-Hour Average: 1.0 COH's/1,000 ft.; 1-Year Average: 0.5 COH's/1,000 ft.

INS – Indicates insufficient sample size to apply 1 year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	24-HR.	24-HR.	1-YEAR
SOUTH WEST	12008	467 University Ave. W. Windsor	356	.00	.16	.27	.44	.82	1.62	.41	4.5	1.7	6	NIL
	12016	College/South St. Windsor	363	.03	.19	.29	.44	.80	1.72	.43	3.5	1.7	4	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	364	.00	.03	.18	.32	.58	1.11	.28	3.1	1.1	1	NIL
	15001	Western Fair Grounds King/Rectory London	342	.00	.10	.21	.34	.58	1.28	.30	2.6	1.1	1	NIL
WEST-CENTRAL	22071	Experimental Farm Simcoe	334	.00	.00	.12	.22	.39	.73	.19	1.6	0.8	NIL	NIL
	27037	North/Geneva Sts. St. Catharines	362	.00	.13	.22	.33	.61	1.27	.32	2.5	1.1	1	NIL
	27049	Murray/Buchanan Ave. Niagara Falls	365	.00	.10	.17	.26	.44	.91	.25	2.1	1.0	NIL	NIL
	29008	North Park Hamilton	353	.10	.29	.54	.90	1.43	2.17	.72	4.1	1.8	76	1
	29025	Barton/Wentworth Hamilton	359	.13	.28	.42	.63	1.07	2.04	.58	4.3	1.8	24	1
CENTRAL	31001	67 College St., 5th Flr Toronto	168	.00	.17	.28	.45	.76	1.35	.40	2.5	1.2	1	INS
	31104	26 Breadalbane Toronto	203	.10	.21	.33	.48	.85	1.58	.45	2.8	1.4	7	INS
	31105	Sherbourne/Wilton St. Toronto	359	.13	.27	.43	.66	1.12	2.14	.60	4.2	1.9	28	1
	33003	Lawrence/Kennedy Scarborough	348	.00	.17	.28	.43	.75	1.60	.40	3.3	1.7	8	NIL
	34007	Bathurst/Wilson North York	358	.00	.19	.36	.63	1.14	1.98	.54	3.6	1.8	35	1
	35003	Elmcrest Rd. Etobicoke	216	.00	.07	.18	.30	.57	1.21	.28	2.3	1.2	1	INS
	35033	Evans/Arnold Ave. Etobicoke	349	.00	.04	.19	.32	.67	1.51	.31	3.5	2.0	1	NIL
	44015	Bronte Rd./Woburn Cres. Oakville	345	.00	.13	.24	.40	.75	1.43	.36	2.3	1.3	4	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	363	.00	.10	.21	.34	.63	1.43	.31	3.7	1.5	3	NIL
SOUTH-EAST	51001	McDonald Garden Rideau/Wurtemberg St. Ottawa	364	.00	.00	.12	.20	.36	.83	.18	2.1	1.0	NIL	NIL
	56051	Memorial Park York/Third St. Cornwall	362	.00	.00	.00	.07	.23	.76	.10	2.3	1.0	NIL	NIL
NORTH-EAST	77016	Ash Street Water Tank Sudbury	359	.00	.00	.00	.13	.28	.84	.12	1.9	0.7	NIL	NIL
	77028	Government/Edward St. Coniston	357	.00	.00	.02	.16	.32	.86	.15	2.1	0.7	NIL	NIL
	77075	Kennedy St. Sudbury	356	.00	.00	.05	.18	.37	1.08	.17	2.8	0.7	NIL	NIL

Table 15

Summary of Data: Soiling Index – 2 Hour (all values are in COH's/1,000 ft.)

Ontario Criteria – 24-Hour Average: 1.0 COH's/1,000 ft.; 1-Year Average: 0.5 COH's/1,000 ft.

INS – Indicates insufficient sample size to apply 1 year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		2-HR.	24-HR.	24-HR.	1-YEAR
SOUTH-WEST	15003	362 Dundas St. London	364	.00	.00	.14	.23	.44	.86	.21	.18	.07	NIL	NIL
WEST-CENTRAL	22086	Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke	360	.00	.00	.05	.16	.34	.66	.15	1.3	0.5	NIL	NIL

Table 15 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		2-HR.	24-HR.	24-HR.	1-YEAR
NEMP	22901	100 M S. Hwy 59												
		Long Point Prov. Park	295	.00	.00	.05	.15	.27	.57	.13	1.1	0.4	NIL	NIL
	22902	Tyneside/Chippewa Rd.												
		Binbrooke West	340	.00	.00	.11	.18	.33	.69	.16	1.3	0.6	NIL	NIL
WEST CENTRAL	26029	Edna/Frederick St.												
		Kitchener	361	.00	.00	.15	.30	.61	1.33	.27	2.5	1.0	NIL	NIL
	27051	Holy Trinity Church												
		Norton/Portage	316	.00	.00	.16	.32	.57	1.03	.26	3.1	0.8	NIL	NIL
	28025	Chippewa												
		Farquhar/Wyndham St.	338	.00	.00	.10	.18	.39	.79	.18	1.4	0.6	NIL	NIL
	29001	Guelph												
		Hughson/Hunter	269	.00	.06	.16	.32	.60	1.22	.28	2.6	1.2	1	NIL
	29009	Hamilton												
		Kenilworth	362	.00	.00	.13	.22	.48	.95	.22	1.8	0.9	NIL	NIL
	29011	Hamilton												
		Burlington/Leeds	335	.00	.08	.18	.35	.67	1.34	.31	3.3	1.3	1	NIL
CENTRAL	29012	Burlington/Wellington												
		Hamilton	360	.00	.01	.14	.23	.49	.99	.23	1.9	0.9	NIL	NIL
	29015	Merrick St.												
		Hamilton	320	.00	.01	.14	.26	.55	1.15	.25	2.5	0.8	NIL	NIL
	29017	Chatham/Frid												
		Hamilton	327	.00	.06	.17	.30	.61	1.20	.28	4.7	1.1	1	NIL
	29067	450 Hughson St. N.												
		Hamilton	318	.00	.00	.13	.24	.48	.89	.22	1.7	0.7	NIL	NIL
	31120	Junction Triangle												
		Perth Ave.	290	.00	.05	.17	.34	.67	1.39	.30	2.8	1.7	4	NIL
	33019	Toronto												
		Met Branch	346	.00	.00	.06	.17	.39	.71	.16	1.4	0.5	NIL	NIL
SOUTH-EAST	34002	Scarborough Bluffs												
		Scarborough	363	.00	.00	.11	.24	.55	1.15	.23	2.3	1.1	1	NIL
	35003	Science Centre												
		770 Don Mills Rd.	92	.00	.00	.17	.34	.74	1.58	.31	2.4	1.4	1	INS
	35005	North York												
		Elmcrest Rd.	363	.00	.01	.16	.33	.61	1.23	.28	2.6	1.1	1	NIL
	35008	Etobicoke												
		Queensway Hospital	359	.00	.00	.12	.19	.45	1.00	.21	2.2	0.9	NIL	NIL
	35050	Etobicoke												
		22 Thirty-Sixth St.	333	.00	.00	.14	.24	.49	1.00	.22	1.9	0.9	NIL	NIL
	44008	MOE Lab												
		Resources Rd.	365	.00	.00	.13	.21	.48	1.03	.22	2.0	0.9	NIL	NIL
SOUTH-EAST	45024	Etobicoke												
		Hwy 2/	340	.00	.04	.15	.28	.54	1.12	.26	2.6	1.0	NIL	NIL
	46025	North Shore Blvd. E.												
		Burlington	356	.00	.14	.24	.50	.65	1.03	.24	1.9	0.9	NIL	NIL
	46033	206 Eulalie St.												
		Oshawa	359	.00	.00	.14	.27	.56	1.15	.25	2.2	1.1	1	NIL
	46100	Mississauga Public Library												
		Mississauga	355	.00	.00	.13	.22	.46	.97	.21	1.7	0.9	NIL	NIL
	46110	Bramalea Fire Hall												
		Green Glade Rd.	342	.00	.06	.17	.34	.64	1.29	.30	2.6	1.3	3	NIL
	48002	Mississauga												
		Queensway West/	356	.00	.00	.06	.15	.32	.73	.15	2.0	0.7	NIL	NIL
SOUTH-EAST	59006	Hurontario St.												
		Mississauga	270	.00	.00	.14	.28	.54	1.17	.25	2.4	1.0	NIL	NIL
SOUTH-EAST	52020	MTC Yard #9												
		Hwy 47	223	.00	.00	.09	.18	.36	.69	.16	1.5	0.4	NIL	NIL
SOUTH-EAST		Stouffville												
		City Hall												
SOUTH-EAST		500 George St.												
		Peterborough												

Table 15 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC-MEAN	MAXIMUM		NO. OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1-HR.	24-HR.	1-HR.	1-YEAR
NORTH-WEST	63022	Hospital 35 Algoma St. N. Thunder Bay	350	.00	.00	.09	.17	.33	.72	.16	1.7	0.5	NIL	NIL
	63040	435 James St. S. Thunder Bay	296	.00	.00	.07	.17	.38	.78	.16	1.3	0.6	NIL	NIL

Table 16

**Summary of Data: Total Suspended Particulate Matter
(all values in micrograms per cubic meter)**

Ontario Criteria – 24-Hour average: 120 ug/m³; Annual geometric mean: 60 ug/m³

INS – Indicates insufficient sample size to apply annual criterion

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
SOUTH-WEST	10015	PUC Bldg. 64 West St. Goderich	57	22	32	48	58	82	143	154	52	45	2	NIL
	11001	35 Thomas St. St. Marys	59	20	37	49	64	105	199	242	60	49	3	NIL
	12002	City Hall 44 Windsor Ave. Windsor	58	42	56	68	83	119	192	233	76	69	5	1
	12005	7730 Riverside Dr. W. Windsor	59	28	36	45	59	79	110	128	50	45	1	NIL
	12008	467 University Ave. W. Windsor	314	29	46	59	78	105	167	189	65	58	20	NIL
	12009	9725 Riverside Dr. E. Little River	43	27	37	45	59	83	103	104	51	46	NIL	NIL
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	22	30	40	49	75	101	116	45	40	NIL	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	56	40	53	59	78	113	150	174	70	65	3	1
	12014	University Met. Stn. College/California St. Windsor	54	46	61	74	100	126	169	220	81	74	7	1
	12015	Sewage Plant Hwy 18/Prospect Windsor	55	61	70	84	105	129	157	166	91	87	9	1
	12016	College/South St. Windsor	56	44	51	62	77	101	158	177	70	65	3	1
	12032	Morton Dock Bedford/Ojibway Windsor	57	46	59	74	86	113	154	188	76	72	4	1
	12036	1802 George St. Windsor	54	37	47	54	63	86	111	131	58	55	1	NIL
	12037	3225 California St. Windsor	56	27	38	49	65	79	112	146	52	46	1	NIL
	12039	Dougall/E.C. Row W. Windsor	59	44	56	70	83	99	130	131	71	66	2	1
	12052	Simone 368 Texas Road Amherstburg	21	53	61	70	82	99	144	144	76	72	2	INS
	12053	415 Front St. Amherstburg	36	27	42	51	74	106	183	188	64	54	3	INS
	13003	Post Office 10 Center St. Chatham	45	33	53	68	78	113	242	323	75	65	4	1
	13022	RR #3 NNW of House Blenheim	26	30	48	64	83	137	317	356	84	67	5	INS
	13023	RR #1 Behind the Barn Blenheim	54	20	31	44	56	85	116	126	47	40	1	NIL
	13024	Jackson Farm Blenheim	52	18	28	36	48	73	123	150	42	35	1	NIL
	13025	RR #2 Behind the Barn Merlin	47	16	25	32	46	55	65	66	36	30	NIL	NIL

Table 16 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
SOUTH-WEST	14001	General Hospital 220 Minton St. Sarnia	58	25	35	44	51	81	114	121	49	44	1	NIL
	14016	Opposite Lambton GS Hwy 40 Courtright	128	14	25	34	48	68	100	118	38	32	NIL	NIL
	14030	RR #1 West of the House Corunna	57	17	29	41	55	78	144	171	47	39	2	NIL
	14031	RR #1 West Side of Barn Mooretown	58	23	32	42	53	86	115	134	49	43	1	NIL
	14054	Sarnia Yacht Club Port Edward Sarnia	57	23	36	58	80	100	168	239	61	51	3	NIL
	14057	Briarwood Rec. Centre Hwy 7 Sarnia	24	23	29	38	51	80	110	119	46	40	NIL	INS
	14059	St. Clair Blvd./ Hwy 40 Corunna	56	27	37	47	62	72	112	140	51	47	1	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	57	35	55	63	76	101	161	223	68	62	3	1
	14151	St. Clair River David/Front St. Sarnia	57	26	38	54	89	116	163	174	65	55	4	NIL
	14904	East Sombra P.S. Wilkesport	13	40	55	57	73	101	130	134	67	62	1	INS
	15001	Western Fair Grounds King/Rectory London	56	24	43	62	79	127	198	209	70	58	8	NIL
	15003	362 Dundas St. London	53	25	34	44	54	79	102	120	47	42	NIL	NIL
	15006	BP Station 1009 Talbot St. St. Thomas	52	30	46	55	72	137	249	285	74	61	9	1
	15007	Fern Ford 1012 Talbot St. St. Thomas	55	35	48	58	74	96	171	174	65	59	2	NIL
	17006	St. Anthony's SS Hwy 2 Beachville	57	43	63	77	110	176	299	309	99	84	13	1
	17019	1401 Parkinson E. Woodstock	80	19	31	41	51	66	101	110	43	37	NIL	NIL
WEST-CENTRAL	22031	Selkirk	60	19	28	36	51	69	109	153	43	37	1	NIL
	22056	Port Dover	55	21	30	43	51	75	125	138	46	40	1	NIL
	22069	Sandusk	50	18	29	38	48	85	210	229	49	40	3	NIL
	22071	Experimental Farm Simcoe	55	15	27	36	44	62	78	90	37	32	NIL	NIL
	22086	Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke	57	21	28	39	48	67	120	170	43	37	1	NIL
	22087	Jarvis Community Centre James St. Jarvis	59	22	32	43	60	85	166	208	52	43	4	NIL
	26029	Edna/Frederick St. Kitchener	54	34	54	61	81	109	227	263	72	64	5	1
	26035	Uniroyal 149 Strange St. Kitchener	58	34	41	52	69	85	141	147	58	54	2	NIL
	27008	71 King St. St. Catharines	56	27	42	60	71	109	136	141	63	55	5	NIL
	27009	Norton/Portage Chippawa	55	48	68	101	129	203	284	302	111	96	19	1
	27014	Stanley/Chippawa Pkwy Chippawa	48	29	47	62	87	135	207	221	76	65	7	1
	27030	Killaly E./James Port Colborne	58	23	37	56	65	91	118	121	55	48	1	NIL

Table 16 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
WEST-CENTRAL	27037	North/Geneva St.												
		St. Catharines	58	30	43	55	73	109	178	181	66	57	6	NIL
	27045	337 Alberta at Devon St.												
		Welland	58	31	49	57	74	94	154	155	63	58	3	NIL
	27047	Davis/Frazer												
		Port Colborne	58	26	43	66	81	107	182	214	67	57	4	NIL
	27048	Niagara Public Works												
		Dominion Road												
		Fort Erie	57	21	31	32	54	74	88	92	44	39	NIL	NIL
	27049	Murray/Buchanan Ave.												
		Niagara Falls	58	37	51	59	70	103	161	193	66	60	5	NIL
	27050	4057 Victoria Ave.												
		Niagara Falls	50	53	71	81	104	139	252	361	95	86	13	1
	28024	95 Inkerman St.												
		Guelph	54	29	36	49	61	100	178	191	58	50	3	NIL
	28025	Farquhar/Wyndham St.												
		Guelph	56	27	39	46	58	75	104	105	51	47	NIL	NIL
	28026	448 College W.												
		Guelph	16	33	45	68	105	179	220	221	89	71	5	INS
	28027	Hanlon Expwy/Speed												
		River												
		Guelph	63	30	44	67	83	152	343	395	82	66	10	1
	29001	Hughson/Hunter												
		Hamilton	58	31	47	56	86	126	181	222	72	62	9	1
	29007	City Hall												
		Hamilton	55	27	41	52	72	111	223	229	67	57	5	NIL
	29008	North Park												
		Hamilton	327	34	53	73	102	158	203	302	86	72	64	1
	29009	Kenilworth												
		Hamilton	68	33	55	62	76	103	172	183	69	63	5	1
	29011	Burlington/Leeds												
		Hamilton	69	45	76	96	121	210	346	377	111	96	21	1
	29012	Burlington/Wellington												
		Hamilton	68	32	53	65	76	92	199	225	68	62	3	1
	29017	Chatham/Frid												
		Hamilton	57	35	59	77	100	131	229	340	85	75	7	1
	29025	Barton/Wentworth												
		Hamilton	317	38	57	73	93	134	260	330	82	72	46	1
	29067	450 Hughson St. N.												
		Hamilton	57	31	47	58	71	87	142	158	61	56	4	NIL
	29085	Upper Wellington/												
		Inverness												
		Hamilton	55	30	43	56	74	102	172	195	63	55	3	NIL
	29087	405 Cumberland Ave.												
		Hamilton	58	37	50	65	76	114	185	203	72	65	5	1
	29089	Barton/Nash												
		Hamilton	57	33	45	61	77	88	124	144	63	58	1	NIL
	29090	Westdale Library												
		Hamilton	58	34	50	59	74	92	181	199	66	59	4	NIL
CENTRAL	31001	67 College St. 5th Flr.												
		Toronto	167	37	47	59	76	130	183	252	72	64	25	INS
	31018	35 Bathurst St.												
		Toronto	349	41	65	86	114	155	216	239	94	83	86	1
	31026	360 Christie St.												
		Toronto	89	33	42	53	67	91	112	125	57	53	1	INS
	31058	Mosley/Leslie St.												
		Toronto	345	43	61	76	99	151	246	349	89	79	68	1
	31064	17 Berkeshire Ave.												
		Toronto	351	31	48	65	83	123	186	232	71	63	37	1
	31065	633 Eastern Ave.												
		Toronto	346	36	57	72	94	140	238	298	82	72	51	1
	31079	Fire Hall												
		1285 Dufferin St.												
		Toronto	340	34	49	60	78	109	155	194	66	60	21	NIL
	31082	Works Dept.												
		138 Hamilton Ave.												
		Toronto	349	33	52	68	91	139	207	275	79	67	53	1
	31084	Maydwell Mfg.												
		65 Saulters St.												
		Toronto	352	37	54	68	88	123	203	283	76	68	39	1

Table 16 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
CENTRAL	31085	Tecumseth/Niagara St.												
		Toronto	338	36	56	74	92	133	190	237	79	70	50	1
	31086	15 Breadalbane												
		Toronto	103	43	57	70	93	138	233	278	84	75	16	INS
	31088	880 Bay St.												
		Toronto	252	31	43	55	72	106	153	161	62	55	10	NIL
	31099	Pal Electric												
		Pape Ave.												
		Toronto	140	36	65	80	114	156	225	248	93	81	37	INS
	31104	26 Breadalbane												
		Toronto	232	27	43	56	80	124	168	196	67	58	26	INS
	31105	Sherbourne/Wilton St.												
		Toronto	117	54	85	113	151	246	404	428	131	113	53	1
	31120	Junction Triangle												
		Perth Ave.												
		Toronto	80	35	46	63	76	94	126	140	63	58	2	NIL
	33003	Lawrence/Kennedy												
		Scarborough	111	33	45	59	76	97	196	281	66	59	5	NIL
	33019	Met. Branch,												
		Scarborough Buffs.												
		Scarborough	108	25	34	44	57	81	108	148	49	44	1	NIL
	34002	Science Centre												
		770 Don Mills Rd.												
		North York	117	25	35	45	54	79	107	115	49	44	NIL	NIL
	34007	Bathurst/Wilson												
		North York	34	42	51	80	111	146	214	216	89	77	9	INS
	35003	Elmcrest Rd.												
		Etobicoke	102	31	43	54	72	98	130	135	60	54	4	NIL
	35005	Queensway Hospital												
		Etobicoke	112	30	44	55	73	92	122	131	60	55	2	NIL
	35033	Evans/Arnold Ave.												
		Etobicoke	121	52	73	93	116	146	193	217	98	91	34	1
	35037	3050 Lakeshore Blvd. W.												
		Etobicoke	332	36	54	69	85	118	163	189	74	68	27	1
	35050	MOE Lab												
		Resources Rd.												
		Etobicoke	120	32	40	51	65	83	138	152	55	51	2	NIL
	35051	Radiation Lab												
		Resources Rd.												
		Etobicoke	339	26	39	51	65	89	138	165	55	50	6	NIL
	44008	Hwy 2/												
		North Shore Blvd.												
		Burlington	117	22	34	43	64	87	154	164	52	45	3	NIL
	44015	Bronte Rd./Woburn Cres.												
		Oakville	112	30	40	48	64	92	120	207	56	50	2	NIL
	45001	Pickering Fire Hall												
		Pickering	327	23	37	52	70	104	192	220	59	50	19	NIL
	45003	McDonald PS												
		Pickering	325	23	35	48	63	86	148	189	53	47	9	NIL
	45004	O'Sullivan,												
		Station Rd.												
		Pickering	149	19	28	35	44	63	117	148	40	35	2	INS
	45005	Frenchman's Bay Sewage												
		Pickering	293	19	31	41	56	88	216	492	51	42	11	NIL
	45006	Lakeshore Park Sewage												
		Pickering	326	18	27	37	44	60	103	175	39	34	2	NIL
	45007	Ajax-Pickering Hospital												
		Pickering	332	18	27	35	45	63	102	142	39	34	1	NIL
	45008	Dufferin Creek Sewage												
		Plant Pickering	65	17	25	30	43	62	86	91	36	32	NIL	INS
	45011	Public Library												
		Oshawa	110	33	42	54	66	90	126	142	58	54	2	NIL
	45025	Ritson Rd./Olive Ave.												
		Oshawa	117	32	41	54	67	92	125	135	58	53	2	NIL
	46025	Mississauga Public Library												
		Mississauga	54	39	55	79	98	138	176	179	82	73	9	1
	46033	Bramalea Fire Hall												
		Bramalea	55	27	40	55	74	96	137	145	60	53	2	NIL
	46045	2365 Dixie Rd.												
		Mississauga	339	37	56	69	84	117	179	442	75	67	31	1
	46046	2360 Dixie Rd.												
		Mississauga	337	35	52	63	78	104	132	161	67	62	11	1

Table 16 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
CENTRAL	46110	Queensway W./ Hurontario St.												
	47019	Mississauga Post Office 17-25 Peter St. N.	116	49	67	79	101	113	196	201	88	81	20	NIL
	48002	Orillia MTC Yard #9, Hwy 47	47	24	32	39	59	79	137	167	50	44	1	NIL
	58027	Stouffville 51 Shuter St.	55	14	31	38	50	80	158	234	47	38	1	NIL
	58028	Port Hope 2 Choate St.	117	16	26	33	49	70	116	150	41	34	1	INS
	58029	Port Hope 66 Queen St.	99	18	36	48	66	91	143	199	55	47	3	INS
	59006	Port Hope City Hall 500 George St.	119	20	33	41	57	83	108	117	47	41	NIL	INS
		Peterborough McDonald Gdns	114	21	29	37	53	74	90	152	44	39	1	NIL
	51001	Rideau/Wurtemberg St. Ottawa	51	20	30	38	49	65	83	88	41	37	NIL	NIL
SOUTH- EAST	51018	55 Queen St. Ottawa	49	22	35	44	55	66	81	86	45	42	NIL	NIL
	52017	106 Clarence St. Kingston	22	32	36	38	48	75	88	89	47	44	NIL	INS
	54013	Post Office Bldg. Belleville	56	21	32	43	57	78	118	155	48	42	1	NIL
	56006	4 Montreal Rd. Cornwall	52	27	39	54	66	81	111	115	54	49	NIL	NIL
	56015	General Hospital Brockville	28	14	22	35	40	68	81	82	37	30	NIL	INS
	56051	Memorial Park York/Third St. Cornwall	56	23	38	49	60	83	102	116	52	47	NIL	NIL
	62013	Weather Station Atikokan	55	10	19	28	38	59	115	154	33	26	1	NIL
	62030	Portage/Church St. Fort Frances	58	28	78	100	130	187	297	316	97	74	19	1
NORTH- WEST	62032	Cemetery Colonization Rd. W. Fort Frances	58	16	26	41	54	84	179	213	49	39	3	NIL
	63005	Hospital Archibald/Arthur Thunder Bay	59	26	38	50	69	92	172	178	59	52	3	NIL
	63012	Dawson Ct./Algoma St. N. Thunder Bay	59	18	29	37	59	81	151	170	49	39	5	NIL
	63022	Hospital 35 Algoma St. N. Thunder Bay	58	20	33	43	59	86	150	156	52	44	4	NIL
	63040	435 James St. S. Thunder Bay	54	18	27	37	52	71	101	117	43	37	NIL	NIL
	63046	CanCar Bldg. Montreal St. Thunder Bay	58	31	44	59	74	144	172	174	72	61	10	1
	63052	Trnst Maint. Bldg. William Rd. Thunder Bay	56	20	40	50	67	132	207	238	65	51	8	NIL
	71020	Police Stn. Hillside Dr. N. Elliot Lake	56	21	34	42	55	92	154	164	50	42	2	NIL
	71022	Sault College, Queen St. Sault Ste. Marie	35	39	62	84	98	158	223	245	88	75	5	INS
	71023	Quirke Townsite, No. 1 Elliot Lake	55	11	19	29	51	74	117	164	39	30	1	NIL
NORTH- EAST	71042	Bonney St. Pumphouse Sault Ste. Marie	43	50	92	143	209	313	394	398	166	130	26	1
	71049	Land Reg. Office Queen St. Sault Ste. Marie	47	24	34	42	64	110	184	196	58	45	3	NIL
	71053	Denison Townsite Elliot Lake	58	10	16	25	32	48	84	119	28	22	NIL	NIL

Table 16 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA	
				10	30	50	70	90	99				24-HR.	1-YR.
NORTH-EAST	71054	Nordic Townsite												
		Elliot Lake	53	7	13	17	24	42	55	61	21	17	NIL	NIL
	71061	Esker Lake Camp	35	11	18	31	41	68	101	108	35	28	NIL	INS
	71063	Trailer Park												
		Stollery Lake	34	17	25	42	65	113	369	501	66	44	3	INS
	75010	OPP Station												
		North Bay	40	16	29	39	54	80	93	95	44	37	NIL	NIL
	77016	Ash Street												
		Water Tank												
		Sudbury	56	18	31	45	55	74	96	98	45	40	NIL	NIL
	77026	19 Lisgar St.												
		Sudbury	44	23	36	43	52	67	139	174	48	43	1	NIL
NEMP	77029	Post Office												
		Spruce/Barber St.												
		Espanola	54	31	43	57	81	112	161	171	67	59	5	NIL
	77070	Nickel St. Pump House												
		Copper Cliff	53	26	35	49	63	87	113	118	53	47	NIL	NIL
	77076	Post Office												
		Falconbridge	47	20	30	38	44	67	121	139	42	37	1	NIL
	22902	Tyneside/Chippewa Rd.												
		Binbrooke West	53	18	27	34	42	50	54	54	35	31	NIL	NIL
	22904	Walpole South PS												
		Sandusk Rd.,												
		Nanticoke	47	18	31	37	46	68	82	91	40	37	NIL	NIL
	22951	Walpole Con. 11/												
		Sandusk Rd.												
		Hagersville	60	20	31	41	51	67	102	129	44	40	1	NIL
	22952	100 M SE. Lakeshore Rd.												
		Peacock Prov. Park	55	17	27	35	42	58	96	104	37	33	NIL	NIL
	22953	Waterford Conc. 2/												
		E. Quarterline												
		Dogs Nest	118	15	25	33	43	65	98	155	38	33	1	NIL
	22954	E. Quarterline/												
		Waterford Conc. 13												
		Villa Nova	59	17	28	34	43	64	105	119	39	35	NIL	NIL
	22955	Hald Norf Rd. 8/												
		Cayuga Conc. 2												
		Rainham Ctr.	56	19	27	36	44	58	64	68	37	33	NIL	NIL
	22956	Hald-Norf Rd. 17/												
		H-N Rd. 32												
		Canfield S.	61	21	33	39	48	66	94	121	42	38	1	NIL
	22957	Fisherville/Indian Line Rd.												
		Fisherville	60	21	34	41	51	73	102	121	45	40	1	NIL
	22958	H-N Rd 63/												
		5 Km E. H-N Rd. 14												
		Canborough E.	54	18	31	39	48	69	116	141	42	37	1	NIL
	22959	Hwy 59												
		Big Creek												
		Wildlife Reserve	58	15	26	36	49	67	94	97	40	35	NIL	NIL
	22960	McKenzie Rd./H-N Rd. NN												
		Dufferin North	58	17	28	39	47	67	94	124	40	36	1	NIL
	22961	Nanticoke Rd./												
		Walpole Conc. 2												
		Nanticoke	108	17	28	38	50	74	109	184	43	37	1	NIL
	22963	NNW 6												
		Stelco North	115	16	25	40	52	77	162	331	46	37	3	NIL

Table 17 **Summary of Data: Sulphate in Suspended Particulate**
(all values in micrograms per cubic meter)
No Existing Criterion

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH-WEST	12002	City Hall										
		44 Windsor Ave.										
		Windsor	57	6.7	9.7	12.2	15.2	20.2	26.7	29.7	13.1	12.0
	12005	7730 Riverside Dr. W.										
		Windsor	59	5.1	8.2	9.8	11.4	17.4	31.7	36.1	11.0	9.8

Table 17 – Continued...

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH- WEST	12008	467 University Ave. W. Windsor	314	5.3	6.9	8.9	11.9	19.1	30.8	44.5	10.8	9.4
	12009	9725 Riverside Dr. E. Little River	41	5.2	7.1	8.4	12.4	16.4	23.8	26.4	10.2	9.2
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	4.9	7.3	10.2	13.2	18.3	29.6	36.4	11.1	9.8
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	56	7.6	9.9	12.7	16.1	21.7	29.2	33.8	14.1	12.9
	12014	University Met. Stn. College/Calif. St. Windsor	54	7.0	9.3	11.7	14.4	19.3	30.3	36.2	12.6	11.6
	12015	Sewage Plant Hwy 18/Prospect Windsor	54	8.6	11.5	13.5	15.2	22.0	28.6	32.3	14.4	13.4
	12032	Morton Dock Bedford/Ojibway Windsor	55	7.1	10.7	13.7	15.6	20.1	26.8	29.3	13.6	12.6
	13003	Post Office 10 Center St. Chatham	46	4.7	7.0	8.7	13.1	17.3	24.6	24.9	10.6	9.3
	13022	RR #3 NNW of House Blenheim	26	6.2	7.9	11.7	13.4	16.7	18.0	18.0	11.2	10.4
	13023	RR #1 Behind the Barn Blenheim	54	4.8	6.7	9.1	12.7	16.8	31.3	38.2	10.5	9.0
	13024	Jackson Farm Blenheim	52	5.4	7.2	9.0	12.8	17.0	40.2	62.8	11.4	9.6
	13025	RR #2 Behind the Barn Blenheim	47	4.9	6.4	8.5	12.0	15.2	25.1	29.8	9.8	8.6
	14001	General Hospital 220 Minton St. Sarnia	58	5.4	6.8	10.5	13.0	19.3	24.1	25.6	11.1	9.9
	14016	Opposite Lambton GS Hwy 40 Courtright	128	4.4	5.7	7.6	9.9	14.5	26.7	37.0	8.8	7.4
	14030	RR #1 West of House Corunna	51	5.2	6.9	7.8	11.0	16.6	22.4	27.6	9.5	8.6
	14031	RR #1 West side of Barn Mooretown	52	5.9	7.0	8.0	11.3	14.7	21.8	28.2	9.6	8.8
	14054	Sarnia Yacht Club Port Edward Sarnia	57	5.1	6.9	8.9	11.2	16.9	25.6	30.0	10.2	9.1
	14064	Centennial Park Front St./CN Tracks Sarnia	57	5.1	7.5	9.7	12.1	18.7	28.5	29.5	10.9	9.6
	14151	St. Clair River Front/David St. Sarnia	56	5.5	7.3	8.9	14.1	20.2	26.6	27.8	11.4	10.0
	15001	Western Fair Grounds King/Rectory London	56	4.5	6.3	8.0	10.6	14.5	20.5	27.7	9.0	8.1
	15003	362 Dundas St. London	53	3.8	5.6	6.8	9.3	13.4	19.6	23.7	8.2	7.3
WEST- CENTRAL	22071	Experimental Farm Simcoe	55	3.7	5.5	7.5	9.9	14.6	21.2	26.4	8.4	7.3
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	57	4.9	6.4	8.2	10.5	18.4	25.4	26.7	9.8	8.6
	26029	Edna/Frederick St. Kitchener	54	5.9	8.1	9.6	12.1	18.0	22.2	25.4	10.8	9.9
	27008	71 King St. St. Catharines	56	4.9	6.6	8.2	10.7	14.9	20.6	23.7	9.1	8.3
	27037	North/Geneva St. St. Catharines	58	5.1	6.7	9.0	11.8	14.4	21.6	22.4	9.6	8.8

Table 17 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
WEST- CENTRAL	27048	Niagara Public Works Dominion Rd. Fort Erie	53	5.4	6.4	8.3	10.2	15.2	25.1	31.5	9.5	8.5
	27049	Murray/Buchanan Ave. Niagara Falls	55	6.3	7.5	9.0	11.6	15.0	21.9	23.1	10.1	9.4
	28025	Farquhar/Wyndham St. Guelph	53	4.4	7.0	8.8	10.1	13.4	22.0	26.1	9.2	8.2
	29001	Hughson/Hunter Hamilton	58	4.8	7.1	8.7	12.2	17.3	23.0	24.2	10.1	9.0
	29008	North Park Hamilton	319	6.0	7.7	10.8	13.8	20.4	31.5	43.6	12.0	10.7
	29011	Burlington/Leeds Hamilton	63	6.4	8.1	10.9	13.5	18.7	31.1	32.1	11.9	10.8
	29012	Burlington/Wellington Hamilton	68	5.1	6.7	9.0	10.8	14.3	24.7	26.4	9.6	8.7
	29017	Chatham/Frid Hamilton	57	5.6	7.3	10.5	13.3	18.2	27.1	28.6	11.5	10.3
	29025	Barton/Wentworth Hamilton	314	5.5	7.0	8.9	12.2	18.7	31.8	41.0	10.9	9.6
	29085	Upper Wellington/ Inverness Hamilton	55	5.2	7.0	8.9	12.1	17.0	24.8	27.6	10.4	9.3
	29087	405 Cumberland Ave. Hamilton	58	5.7	6.9	8.8	11.7	15.4	21.5	24.4	10.0	9.2
CENTRAL	31001	67 College Ave, 5th Flr Toronto	163	6.8	8.4	9.8	11.8	16.2	23.9	29.1	10.8	10.1
	31026	360 Christie St. Toronto	89	6.5	8.0	8.9	10.6	13.9	19.0	19.3	9.8	9.4
	31086	15 Breadalbane Toronto	103	6.5	8.3	9.3	10.6	14.1	22.9	27.3	10.2	9.6
	31104	26 Breadalbane Toronto	177	6.8	8.0	9.1	11.6	14.3	25.8	29.4	10.3	9.7
	31105	Sherbourne/Wilton St. Toronto	117	6.7	8.4	10.4	12.6	17.2	26.7	28.0	11.3	10.6
	31120	Junction Triangle Perth Ave. Toronto	77	6.0	8.1	9.0	11.0	15.8	22.1	32.3	10.1	9.4
	33003	Lawrence/Kennedy Scarborough	111	5.7	7.3	8.8	10.6	14.2	23.4	24.8	9.8	9.1
	34002	Science Centre 770 Don Mills Rd. North York	117	5.8	7.6	8.9	11.0	14.3	24.3	27.5	9.8	9.1
	34007	Bathurst/Wilson North York	34	8.5	9.5	10.9	13.2	18.0	20.8	21.0	12.0	11.4
	35003	Elmcrest Rd. Etobicoke	102	6.3	7.9	9.3	11.2	15.3	20.3	28.5	10.1	9.4
	35005	Queensway Hospital Etobicoke	111	6.0	7.4	8.5	10.6	15.6	28.8	30.7	10.0	9.2
	35033	Evans/Arnold Ave. Etobicoke	121	7.9	9.6	12.0	14.9	19.5	26.8	38.9	13.1	12.1
	44008	Hwy 2/ North Shore Blvd. E. Burlington	117	6.5	8.1	9.3	11.5	16.6	28.3	28.6	10.8	10.0
	44015	Bronte Rd./Woburn Cres. Oakville	108	5.7	7.3	8.5	11.1	15.7	24.2	25.9	9.9	9.0
	45001	Pickering Fire Hall Pickering	327	4.0	5.2	6.7	9.2	15.0	22.3	27.2	8.1	7.2
	45011	Public Library Oshawa	109	5.6	8.2	10.4	12.5	17.0	22.5	26.1	10.9	10.0
	45025	Ritson Rd./Olive Ave. Oshawa	117	5.9	7.9	9.7	11.3	14.4	20.7	30.2	10.2	9.5
	46025	Mississauga Public Library Mississauga	54	5.5	8.0	10.3	13.7	17.6	27.3	30.9	11.4	10.3
	46033	Bramalea Fire Hall Bramalea	55	5.3	6.7	8.7	10.4	13.9	20.7	26.0	9.0	8.2
	46110	Queensway W./ Huronario St. Mississauga	111	6.1	8.2	11.1	14.1	18.1	36.9	45.1	12.0	10.8
	47019	Post Office 17-25 Peter St. N. Orillia	47	4.7	6.0	7.4	10.8	13.5	21.0	22.9	8.7	7.8

Table 17 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
CENTRAL	58027	51 Shuter St. Port Hope	117	3.7	4.8	6.3	9.8	16.7	28.2	29.7	8.4	7.0
	58028	2 Choate St. Port Hope	99	3.6	5.3	7.0	10.8	19.8	28.7	29.3	9.1	7.5
	58029	66 Queen St. Port Hope	119	3.5	4.6	6.6	10.3	17.4	26.5	27.0	8.6	7.1
	59006	City Hall 500 George St. Peterborough	114	4.4	5.8	7.0	9.2	12.8	20.0	22.8	8.0	7.3
SOUTH- EAST	51001	McDonald Gardens Rideau/Wurtemberg St. Ottawa	51	4.3	6.2	7.5	10.0	13.9	18.4	19.0	8.6	7.8
	51018	55 Queen St. Ottawa	49	5.1	6.5	8.5	10.4	16.3	19.9	20.7	9.5	8.7
	54013	Post Office Bldg. Belleville	56	3.9	4.8	6.0	7.9	13.7	19.8	22.5	7.3	6.5
	56006	4 Montreal St. Cornwall	52	5.5	7.0	8.9	10.8	14.8	21.0	21.9	9.7	8.9
	56015	General Hospital Brockville	28	4.5	5.8	7.8	10.9	17.0	27.0	27.4	9.9	8.4
	56051	Memorial Park York/Third St. Cornwall	54	6.0	8.5	10.0	11.2	17.8	24.5	25.5	10.9	9.9
NORTH- WEST	63005	Hospital Archibald/Arthur Thunder Bay	59	4.6	6.6	7.9	9.1	12.7	20.0	20.8	8.4	7.8
	63022	Hospital 35 Algoma St. N. Thunder Bay	58	3.3	5.4	6.8	8.9	11.5	14.6	15.1	7.3	6.6
	63040	435 James St. S. Thunder Bay	54	3.1	5.3	7.0	8.7	12.1	18.6	18.9	7.3	6.4
NORTH- EAST	71022	Sault College Queen St. Sault Ste. Marie	35	6.6	10.8	13.8	15.9	19.8	26.9	29.1	13.6	12.3
	71042	Bonney St. Pumphouse Sault Ste. Marie	40	5.1	8.2	11.5	17.4	24.7	57.1	65.0	15.0	11.8
	71049	Land Reg. Office Queen St. Sault Ste. Marie	47	4.3	6.8	7.9	9.1	14.1	22.0	23.2	8.8	7.8
	75010	OPP Station North Bay	40	3.8	4.8	6.4	7.6	11.5	30.8	44.1	7.9	6.6
	77016	Ash Street Water Tank Sudbury	55	4.9	7.7	10.2	14.4	18.0	23.1	24.3	11.3	9.8
	77026	19 Lisgar St. Sudbury	44	5.1	7.0	9.3	11.7	16.0	23.7	26.6	10.0	8.9
	77070	Nickel St. Pump House Copper Cliff	52	6.3	9.9	12.1	16.9	22.8	28.6	33.1	13.8	11.9
	77076	Post Office Falconbridge	43	4.4	6.2	8.5	10.8	14.6	20.7	23.3	8.9	7.4

Table 18 **Summary of Data: Nitrates in Suspended Particulate Matter**
(all values in micrograms per cubic meter)
No Existing Criterion

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH- WEST	12002	City Hall 44 Windsor Ave. Windsor	58	2.5	4.6	6.1	8.8	11.6	18.6	19.4	7.0	5.8
	12005	7730 Riverside Dr. W. Windsor	59	1.6	3.4	4.7	6.5	7.9	10.4	11.1	4.9	4.0
	12008	467 University Ave. W. Windsor	316	1.5	2.8	4.1	5.9	9.5	17.2	22.4	4.9	3.9
	12009	9725 Riverside Dr. E. Little River	43	1.3	2.7	4.4	5.3	7.9	12.2	13.7	4.5	3.6

Table 18 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH- WEST	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	1.6	2.5	3.9	5.3	8.0	13.3	14.3	4.5	3.6
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	56	2.5	4.3	5.8	7.7	10.0	14.3	14.7	6.3	5.4
	12014	University Met. Stn. College/Calif. St. Windsor	49	2.1	3.8	5.3	6.8	8.8	12.7	13.6	5.5	4.7
	12015	Sewage Plant Hwy 18/Prospect Windsor	55	2.7	3.8	5.9	7.0	9.4	14.0	17.7	6.0	5.2
	12032	Morton Dock Bedford/Ojibway Windsor	57	1.8	3.4	4.8	7.2	9.6	13.6	18.1	5.5	4.5
	13003	Post Office 10 Center St. Chatham	46	1.9	3.8	4.9	6.2	9.3	18.1	18.7	5.6	4.6
	13022	RR #3 NNW of House Blenheim	26	2.8	4.6	5.4	7.3	10.0	13.8	15.2	6.1	5.4
	13023	RR #1 Behind the Barn Blenheim	54	1.4	2.8	4.2	5.9	8.2	12.0	13.8	4.5	3.5
	13024	Jackson Farm Blenheim	52	1.2	2.6	4.1	5.1	7.5	12.4	15.7	4.3	3.2
	13025	RR #2 Behind the Barn Blenheim	47	1.6	2.5	3.9	4.9	7.2	12.5	14.8	4.2	3.3
	14001	General Hospital 220 Minton St. Sarnia	58	1.2	2.9	4.3	5.8	9.0	14.8	19.1	4.8	3.7
	14016	Opposite Lambton GS Hwy 40 Courtright	128	1.0	2.4	3.8	5.4	8.1	11.3	13.5	4.2	3.1
	14030	RR #1 West of House Corunna	51	1.1	2.5	4.1	5.5	8.2	13.3	13.7	4.4	3.3
	14031	RR #1 West side of Barn Mooretown	50	1.0	2.0	3.6	5.0	6.9	9.8	10.1	3.7	2.9
	14054	Sarnia Yacht Club Port Edward Sarnia	57	1.3	2.3	3.9	6.0	8.0	12.4	14.1	4.3	3.4
	14064	Centennial Park Front St./CN Tracks Sarnia	57	1.2	2.7	3.8	5.6	9.5	14.5	16.2	4.7	3.5
	14151	St. Clair River Front/David St. Sarnia	57	1.4	2.6	4.5	6.3	9.2	13.1	13.7	4.9	3.8
	15001	Western Fair Grounds King/Rectory London	56	1.2	2.3	3.7	5.7	8.8	13.3	13.5	4.6	3.5
	15003	362 Dundas St. London	53	1.3	2.6	3.5	5.0	8.3	12.1	12.3	4.3	3.3
WEST- CENTRAL	22071	Experimental Farm Simcoe	55	1.4	2.3	3.5	4.5	5.7	8.0	9.4	3.4	2.7
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	57	1.4	2.4	3.9	4.9	8.0	12.3	12.9	4.2	3.3
	26029	Edna/Frederick St. Kitchener	54	1.1	2.6	4.5	6.0	8.1	14.2	15.8	4.7	3.4
	27008	71 King St. St. Catharines	56	1.5	3.0	3.9	5.1	8.7	11.7	13.4	4.5	3.6
	27037	North/Geneva St. St. Catharines	58	1.5	2.8	3.8	5.4	7.9	13.0	13.2	4.4	3.6
	27048	Niagara Public Works Dominion Rd. Fort Erie	53	1.2	2.4	3.0	4.3	5.7	8.4	9.9	3.4	2.8
	27049	Murray/Buchanan Ave. Niagara Falls	55	2.4	2.9	4.1	5.7	7.4	11.0	13.0	4.5	4.0

Table 18 – Continued ...

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
WEST- CENTRAL	28025	Farquhar/Wyndham St. Guelph	53	1.2	2.2	3.5	4.8	7.9	12.5	12.8	4.2	3.2
	29001	Hughson/Hunter Hamilton	58	1.8	2.8	4.3	6.1	9.2	13.8	15.2	5.0	4.1
	29008	North Park Hamilton	326	1.1	2.4	4.0	5.7	9.1	17.0	20.8	4.7	3.5
	29011	Burlington/Leeds Hamilton	69	1.5	2.6	4.3	6.2	8.6	12.9	14.1	4.8	3.8
	29012	Burlington/Wellington Hamilton	68	1.3	2.3	3.5	5.4	8.4	14.3	18.8	4.4	3.3
	29017	Chatham/Frid Hamilton	57	1.7	2.7	4.5	6.6	9.5	16.2	17.9	5.2	4.0
	29025	Barton/Wentworth Hamilton	317	1.1	2.3	3.8	5.6	9.4	15.0	25.0	4.6	3.4
	29085	Upper Wellington/ Inverness Hamilton	55	1.6	2.8	4.3	5.7	9.0	13.2	14.2	4.7	3.7
	29087	405 Cumberland Ave. Hamilton	58	1.5	2.4	3.9	5.5	7.4	11.7	11.9	4.3	3.4
CENTRAL	31001	67 College Ave., 5th Flr Toronto	163	1.6	2.6	4.2	6.6	9.7	15.7	17.9	5.2	4.0
	31026	360 Christie St. Toronto	77	1.5	2.7	4.6	6.4	9.7	14.3	15.9	5.1	4.0
	31086	15 Breadalbane Toronto	91	1.2	2.4	3.9	6.4	8.3	16.9	20.0	4.7	3.6
	31104	26 Breadalbane Toronto	232	1.1	2.6	4.3	6.8	10.3	15.0	17.4	5.1	3.7
	31105	Sherbourne/Wilton St. Toronto	119	1.3	2.5	3.7	6.7	9.8	15.5	16.2	5.0	3.8
	31120	Junction Triangle Perth Ave. Toronto	77	1.3	3.0	4.5	6.3	7.9	12.5	13.0	4.8	3.8
	33003	Lawrence/Kennedy Scarborough	108	0.9	2.1	3.2	5.4	7.4	10.2	12.4	3.9	3.0
	34002	Science Centre 770 Don Mills Rd. North York	117	1.1	2.1	3.6	5.5	7.9	12.9	14.3	4.1	3.1
	34007	Bathurst/Wilson North York	34	1.2	2.2	4.2	6.1	11.1	15.9	17.2	5.1	3.7
	35003	Elmcrest Rd. Etobicoke	102	1.1	2.2	4.1	6.5	9.2	14.8	15.7	4.7	3.5
	35005	Queensway Hospital Etobicoke	112	1.2	2.5	4.2	5.5	8.3	11.4	16.8	4.5	3.5
	35033	Evans/Arnold Ave. Etobicoke	117	1.7	3.1	5.6	7.3	12.3	16.8	17.0	6.3	4.9
	44008	Hwy 2/ North Shore Blvd. E. Burlington	113	1.3	3.1	4.8	6.4	9.3	15.6	17.1	5.2	4.1
	44015	Bronte Rd./Woburn Cres. Oakville	108	0.9	2.0	3.6	5.0	7.1	11.5	12.4	3.8	2.9
	45001	Pickering Fire Hall Pickering	327	0.8	1.7	2.8	4.6	8.0	13.1	14.8	3.7	2.7
	45011	Public Library Oshawa	109	1.1	1.9	3.8	5.6	8.0	11.6	13.8	4.2	3.2
	45025	Pitson Rd./Olive Ave. Oshawa	117	1.0	2.3	3.4	5.7	7.7	12.8	15.5	4.3	3.3
	46025	Mississauga Public Library Mississauga	54	1.3	2.4	3.7	5.3	8.3	15.6	18.6	4.6	3.5
	46033	Bramalea Fire Hall Bramalea	55	0.9	1.6	3.7	5.7	8.1	12.7	14.7	4.2	3.0
	46110	Queensway W./ Huronario St. Mississauga	108	1.3	2.9	4.3	6.4	10.0	16.1	16.4	5.1	3.8
	47019	Post Office 17-25 Peter St. N. Orillia	47	0.8	1.4	2.0	4.0	6.1	10.3	13.7	3.0	2.2
	58027	51 Shuter St. Port Hope	109	0.6	1.6	3.1	4.6	7.9	15.3	15.4	3.8	2.5
	58028	2 Choate St. Port Hope	99	1.0	2.6	4.1	9.0	14.2	22.0	22.7	6.3	3.9

Table 18 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
CENTRAL	58029	66 Queen St. Port Hope	119	0.5	1.5	3.1	4.7	9.0	15.0	17.8	3.9	2.5
	59006	City Hall 500 George St. Peterborough		0.5	1.3	2.4	4.1	6.6	8.8	14.6	3.0	1.9
SOUTH-EAST	51001	McDonald Gardens Rideau/Wurtemberg St. Ottawa	51	0.5	0.9	1.8	2.7	4.8	7.0	8.1	2.2	1.6
	51018	55 Queen St. Ottawa	49	0.5	0.9	1.7	2.7	4.5	7.2	8.7	2.3	1.7
	54013	Post Office Bldg. Belleville	56	0.7	1.3	2.0	3.3	5.8	10.2	13.3	2.8	2.0
	56006	4 Montreal St. Cornwall	52	1.0	1.5	2.4	3.5	6.0	10.4	11.1	3.0	2.3
	56015	General Hospital Brockville	30	0.8	1.5	2.3	3.6	5.2	6.5	6.7	2.7	2.1
	56051	Memorial Park York/Third St. Cornwall	56	0.8	1.6	2.4	4.0	6.3	10.1	10.3	3.2	2.4
NORTH-WEST	63005	Hospital Archibald/Arthur Thunder Bay	59	0.6	1.0	1.3	2.5	4.6	8.7	13.6	2.2	1.5
	63022	Hospital 35 Algoma St. N. Thunder Bay	58	0.4	0.6	1.1	2.3	4.1	9.1	11.7	1.8	1.1
	63040	435 James St. S. Thunder Bay	54	0.5	0.9	1.4	2.2	5.3	9.5	12.6	2.1	1.4
NORTH-EAST	71022	Sault College Queen St.	35	0.8	1.4	1.9	2.6	6.7	10.0	10.1	2.8	2.0
	71042	Sault Ste. Marie Bonney St. Pump House	47	0.5	1.2	1.7	2.6	6.6	10.7	11.4	2.8	1.8
	71049	Sault Ste. Marie Land Reg. Office Queen St.	47	0.5	1.1	1.6	2.1	4.9	8.3	9.1	2.1	1.5
	75010	Sault Ste. Marie OPP Station North Bay	40	0.5	0.8	1.4	1.9	3.7	5.2	5.8	1.7	1.2
	77016	Ash Street Water Tank Sudbury	56	0.5	1.1	1.7	2.6	4.4	11.2	11.8	2.4	1.6
	77026	19 Lisgar St. Sudbury	44	0.6	1.3	1.7	1.9	3.6	8.2	13.3	2.0	1.6
	77070	Nickel St. Pump House Copper Cliff	53	0.5	1.1	1.8	2.4	4.4	12.3	13.0	2.3	1.6
	77076	Post Office Falconbridge	47	0.3	0.7	1.1	1.5	2.5	4.3	4.5	1.5	0.9

Table 19 **Summary of Data: Lead in Suspended Particulate Matter – XRF**
(all values in micrograms per cubic meter)

Ontario Criterion – 24-Hour average: 5.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12002	City Hall 44 Windsor Ave. Windsor	58	0.1	0.2	0.3	0.4	0.5	1.1	2.0	0.3	0.3	NIL
	12008	467 University Ave. Windsor	316	0.1	0.2	0.3	0.4	0.6	1.2	2.0	0.4	0.3	NIL
	12009	9725 Riverside Dr. E. Little River	43	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.1	0.1	NIL
	12032	Morton Dock Bedford/Ojibway Windsor	57	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.2	0.1	NIL

Table 19 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	10	30	50	70	90	99	MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
SOUTH- WEST	14054	Sarnia Yacht Club Port Edward											
		Sarnia	57	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.1	0.1	NIL
	14064	Centennial Park Front St./CN Tracks											
		Sarnia	59	0.1	0.1	0.1	0.2	0.3	0.5	0.6	0.1	0.1	NIL
	15001	Western Fair Grounds King/Rectory											
		London	56	0.1	0.2	0.3	0.4	0.6	1.1	1.3	0.3	0.2	NIL
	15003	362 Dundas St. London	53	0.1	0.1	0.2	0.3	0.4	0.6	0.7	0.2	0.1	NIL
WEST CENTRAL	17019	1401 Parkinson E. Woodstock	80	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.1	0.0	NIL
	26029	Edna/Frederick St. Kitchener	54	0.3	0.5	0.8	1.2	1.9	3.8	4.2	1.0	0.8	NIL
	27037	North/Geneva St. St. Catharines	58	0.1	0.2	0.3	0.4	0.6	0.9	0.9	0.3	0.2	NIL
	27049	Murray/Buchanan Ave. Niagara Falls	55	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.2	0.1	NIL
	28025	Farquhar/Wyndham St. Guelph	53	0.1	0.1	0.2	0.3	0.5	0.6	0.6	0.2	0.1	NIL
	29008	North Park Hamilton	326	0.2	0.6	0.7	0.9	1.2	1.7	2.3	0.8	0.6	NIL
	29017	Chatham/Frid Hamilton	57	0.1	0.2	0.3	0.5	0.9	2.0	2.6	0.5	0.3	NIL
CENTRAL	29025	Barton/Wentworth Hamilton	317	0.3	0.4	0.6	0.8	1.2	2.1	3.1	0.7	0.6	NIL
	31001	67 College St. 5th Floor Toronto	167	0.1	0.2	0.3	0.5	0.9	1.3	1.4	0.4	0.3	NIL
	31018	35 Bathurst St. Toronto	353	0.3	0.5	0.6	1.0	1.5	3.2	8.3	0.8	0.6	2
	31058	Mosley/Leslie St. Toronto	345	0.3	0.5	0.8	1.2	2.1	4.2	4.7	1.1	0.8	NIL
	31064	17 Berkshire Ave. Toronto	351	0.2	0.4	0.6	0.9	1.6	2.5	4.0	0.8	0.5	NIL
	31065	633 Eastern Ave. Toronto	346	0.2	0.5	0.8	1.2	2.1	3.8	6.1	1.0	0.7	1
	31079	1285 Dufferin St. Toronto	342	0.3	0.4	0.6	0.8	1.1	2.0	4.6	0.6	0.5	NIL
	31082	Works Dept. 138 Hamilton Ave. Toronto	349	0.3	0.5	0.7	0.9	1.5	2.6	5.3	0.8	0.7	1
	31084	Maydwell Mfg. 65 Sault St. Toronto	352	0.2	0.3	0.4	0.6	1.0	1.7	3.3	0.5	0.4	NIL
	31085	Tecumseth/Niagara St. Toronto	338	0.3	0.6	1.0	1.6	2.9	4.7	6.8	1.3	0.9	2
	31086	15 Breadalbane Toronto	103	0.1	0.2	0.3	0.5	0.7	1.3	1.4	0.4	0.3	NIL
	31099	Pal Electric Pape Ave. Toronto	140	0.2	0.4	0.6	0.9	1.4	2.0	2.0	0.7	0.5	NIL
	31104	26 Breadalbane Toronto	229	0.1	0.3	0.4	0.6	0.9	1.6	2.3	0.5	0.3	NIL
	31105	Sherbourne/Wilton St. Toronto	119	0.3	0.4	0.6	0.8	1.2	1.8	2.1	0.7	0.6	NIL
	31120	Junction Triangle, Perth Ave. Toronto	80	0.1	0.2	0.4	0.5	0.7	1.2	1.3	0.4	0.3	NIL
	33003	Lawrence/Kennedy Scarborough	111	0.1	0.3	0.4	0.6	0.8	1.5	1.9	0.5	0.3	NIL
	33019	Met. Branch, Scarborough Bluffs, Scarborough	108	0.1	0.1	0.2	0.2	0.4	0.8	0.9	0.2	0.1	NIL
	34002	Science Centre 770 Don Mills Rd. North York	117	0.1	0.2	0.3	0.4	0.7	1.4	1.9	0.3	0.2	NIL
	34007	Bathurst/Wilson North York	34	0.2	0.3	0.5	1.2	2.3	2.9	2.9	1.0	0.5	NIL

Table 19 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
CENTRAL	35003	Elmcrest Rd. Etobicoke	102	0.1	0.2	0.3	0.5	0.9	1.8	2.6	0.4	0.2	NIL
	35033	Evans/Arnold Etobicoke	121	0.6	0.9	1.3	1.6	2.1	2.8	3.0	1.3	1.1	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	332	0.2	0.3	0.4	0.6	0.8	1.4	3.5	0.5	0.4	NIL
	44015	Bronte Rd./Woburn Cres. Oakville	112	0.1	0.2	0.2	0.4	0.6	1.0	2.0	0.3	0.2	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	117	0.1	0.1	0.3	0.5	0.8	1.1	1.1	0.3	0.2	NIL
	46045	2365 Dixie Rd. Mississauga	339	0.2	0.6	0.9	1.6	2.9	6.6	9.3	1.4	0.8	10
	46046	2360 Dixie Rd. Mississauga	337	0.6	1.1	2.0	3.8	8.9	19.8	29.7	3.6	2.1	77
	46110	Queensway W./ Hurontario St. Mississauga	116	0.3	0.4	0.6	0.7	1.1	1.9	2.5	0.7	0.5	NIL
	59006	City Hall 500 George St. Peterborough	114	0.1	0.2	0.3	0.4	0.6	1.5	1.6	0.3	0.2	NIL
SOUTH-EAST	51001	McDonald Gdns Rideau/Wurtemberg St. Ottawa	51	0.1	0.2	0.2	0.3	0.4	0.8	1.3	0.2	0.2	NIL
	56051	Memorial Park York/Third St. Cornwall	56	0.1	0.1	0.2	0.3	0.5	1.5	1.7	0.3	0.1	NIL
NORTH-WEST	63022	Hospital 35 Algoma St. N. Thunder Bay	14	0.1	0.2	0.2	0.4	0.5	0.7	0.7	0.3	0.2	NIL
	63040	435 James St. S. Thunder Bay	54	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.1	0.1	NIL
NORTH-EAST	71022	Sault College, Queen St. Sault Ste. Marie	35	0.1	0.1	0.1	0.3	0.4	0.6	0.6	0.2	0.1	NIL
	77016	Ash Street Water Tank Sudbury	56	0.1	0.1	0.2	0.3	0.4	0.9	1.1	0.2	0.1	NIL
	77026	19 Lisgar St. Sudbury	44	0.1	0.2	0.3	0.4	0.6	1.1	1.2	0.3	0.2	NIL

Table 20 Summary of Data: Lead in Total Suspended Particulate Matter–Atomic Absorption (all values in micrograms per cubic meter)

Ontario Criterion – 24-Hour average: 5.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12005	7730 Riverside Dr. W. Windsor	60	0.1	0.1	0.2	0.3	0.3	1.2	2.6	0.3	0.2	NIL
	12010	Tecumseh Sew. Stn. Manning Rd. Windsor	58	0.1	0.1	0.2	0.2	0.4	0.5	0.6	0.2	0.2	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	53	0.1	0.2	0.2	0.3	0.4	0.9	1.2	0.3	0.2	NIL
	12014	College/Calif. St. Windsor	49	0.2	0.3	0.4	0.5	1.0	1.5	1.7	0.5	0.4	NIL
	12015	Hwy 18/Prospect Windsor	54	0.2	0.2	0.2	0.3	0.4	0.7	1.4	0.3	0.2	NIL
	13003	Post Office 10 Centre St. Chatham	43	0.1	0.2	0.2	0.3	0.3	0.5	0.5	0.2	0.2	NIL
	13022	RR #3, NNW of House Blenheim	26	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	NIL

Table 20 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	13023	RR #1, Behind the Barn Blenheim	54	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	NIL
	13024	Jackson Farm Blenheim	52	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	NIL
	13025	RR #2, Behind the Barn Merlin	47	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	NIL
	14001	General Hospital 220 Minton St. Sarnia	54	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.2	0.1	NIL
	14016	Opposite Lambton G.S. Hwy 40 Courtright	124	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1	NIL
	14030	RR #1, West of House Corunna	58	0.1	0.1	0.1	0.1	0.2	0.5	1.4	0.1	0.1	NIL
	14031	RR #1, West side of Barn Mooretown	58	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	NIL
WEST-CENTRAL	28024	95 Inkerman St. Guelph	51	0.1	0.1	0.2	0.2	0.4	1.8	2.3	0.3	0.2	NIL
	29001	Hughson/Hunter Hamilton	58	.02	.02	.04	.05	.08	1.0	1.2	0.4	0.4	NIL
	29011	Burlington/Leeds Hamilton	69	0.2	0.3	0.5	0.6	0.9	1.3	1.3	0.5	0.5	NIL
	29012	Burlington/Wellington Hamilton	68	0.1	0.2	0.2	0.3	0.5	0.8	0.9	0.3	0.2	NIL
	29067	450 Hughson St. N. Hamilton	58	0.1	0.2	0.2	0.4	0.6	1.3	1.5	0.3	0.3	NIL
	29085	Upper Wellington/ Inverness Hamilton	55	0.1	0.2	0.3	0.5	0.8	1.2	1.3	0.4	0.3	NIL
CENTRAL	46025	Mississauga Public Library Mississauga	54	0.2	0.3	0.4	0.6	0.8	1.2	1.5	0.5	0.4	NIL
NORTH-WEST	63005	Hospital Archibald/Arthur Thunder Bay	59	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.2	0.2	NIL
	63022	Hospital 35 Algoma St. N. Thunder Bay	44	0.1	0.2	0.2	0.2	0.4	0.6	0.6	0.2	0.2	NIL
NORTH-EAST	71042	Bonney St. Pumphouse Sault Ste. Marie	47	0.1	0.1	0.2	0.3	0.4	0.7	0.7	0.2	0.2	NIL
	71049	Land Reg. Office Queen St. Sault Ste. Marie	47	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.2	0.2	NIL
	75010	OPP Station North Bay	41	0.1	0.1	0.2	0.2	0.5	0.7	0.8	0.2	0.2	NIL
	77070	Nickel St. Pump House Copper Cliff	48	0.1	0.1	0.2	0.2	0.4	0.7	0.7	0.2	0.1	NIL

Table 21 **Summary of Data: Iron in Total Suspended Particulate Matter**
(all values in micrograms per cubic meter)
No Existing Criterion

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH-WEST	12002	City Hall 44 Windsor Ave. Windsor	55	0.6	1.0	1.4	2.0	3.6	6.1	6.9	1.8	1.4
	12005	7730 Riverside Dr. W. Windsor	60	0.3	0.7	0.8	1.0	1.9	6.3	13.0	1.2	0.8
	12008	467 University Ave. W. Windsor	307	0.5	0.9	1.3	1.9	3.0	5.5	7.2	1.6	1.3
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	0.1	0.5	0.6	0.8	1.0	2.7	4.7	0.7	0.4

Table 21 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH- WEST	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	56	0.4	1.0	1.4	2.0	3.7	5.9	6.4	1.8	1.4
	12014	University Met. Stn. College/Calif. St. Windsor	54	0.7	1.1	1.6	2.4	3.3	5.5	6.8	1.9	1.6
	12015	Sewage Plant Hwy 18/Prospect Windsor	54	0.9	1.4	1.9	3.3	4.7	5.6	5.8	2.5	2.0
	12032	Morton Dock Bedford/Ojibway Windsor	57	0.2	0.5	1.0	1.6	2.9	7.3	8.2	1.5	0.9
	12039	Dougall/E.C. Rowe W. Windsor	59	.02	.09	1.2	1.9	3.6	9.4	10.4	1.8	1.2
	13003	Post Office 10 Center St. Chatham	43	0.3	0.7	0.9	1.2	2.0	4.2	5.4	1.1	0.8
	13022	RR #3 NNW of House Blenheim	23	0.3	0.8	1.3	1.9	4.3	9.4	10.3	2.1	1.3
	13023	RR #1 Behind the Barn Blenheim	49	0.2	0.4	0.7	1.1	1.5	3.7	3.9	0.9	0.6
	13024	Jackson Farm Blenheim	47	0.2	0.4	0.5	0.8	1.5	2.1	2.2	0.7	0.5
	13025	RR #2 Behind the Barn Merlin	42	0.1	0.2	0.4	0.8	1.1	2.9	3.5	0.6	0.4
	14001	General Hospital 220 Minton St. Sarnia	54	0.2	0.3	0.4	0.7	1.3	2.2	2.6	0.7	0.5
	14016	Opposite Lambton GS Hwy 40 Courtright	124	0.1	0.3	0.4	0.7	1.2	1.7	2.6	0.6	0.4
	14030	RR #1 West of the House Corunna	58	0.1	0.2	0.3	0.6	1.7	3.7	4.5	0.7	0.4
	14031	RR #1 West side of Barn Mooretown	58	0.1	0.2	0.4	0.7	1.1	2.2	2.6	0.6	0.4
	14064	Centennial Park Front St./CN Tracks Sarnia	57	0.3	0.4	0.6	0.8	1.1	1.8	2.3	0.7	0.6
	15001	Western Fair Grounds King/Rectory London	53	0.2	0.5	0.8	1.1	2.0	3.0	3.1	1.0	0.7
WEST- CENTRAL	28024	95 Inkerman St. Guelph	54	.03	.05	.08	1.2	2.4	5.4	5.5	1.2	0.8
	29001	Hughson/Hunter Hamilton	56	0.3	0.6	1.4	2.6	7.2	13.1	15.2	2.7	1.4
	29008	North Park Hamilton	324	0.7	1.5	2.7	5.3	11.0	17.8	22.3	4.5	2.7
	29011	Burlington/Leeds Hamilton	69	1.2	2.6	4.3	5.8	17.4	30.8	31.2	6.9	4.5
	29012	Burlington/Wellington Hamilton	68	0.6	1.0	1.5	2.0	4.5	8.0	8.7	2.0	1.5
	29017	Chatham/Frid Hamilton	57	0.8	1.1	1.7	3.0	7.5	21.9	28.1	3.4	2.0
	29025	Barton/Wentworth Hamilton	317	0.7	1.3	2.3	3.5	7.7	22.0	32.9	3.6	2.3
	29067	450 Hughson St. N. Hamilton	58	.03	.08	1.3	2.2	4.6	8.5	9.7	2.1	1.3
	29085	Upper Wellington/ Inverness Hamilton	55	0.3	0.5	1.1	2.4	6.1	12.2	14.6	2.3	1.2
CENTRAL	31018	35 Bathurst St. Toronto	300	0.8	1.4	2.0	2.7	4.5	6.4	7.7	2.3	1.9
	31058	Mosley/Leslie St. Toronto	344	0.6	1.1	1.7	2.3	3.8	6.3	16.2	2.0	1.5

Table 21 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
CENTRAL	31104	26 Breadalbane Toronto	232	0.4	0.7	0.9	1.3	2.2	4.0	10.8	1.2	0.9	
	33003	Lawrence/Kennedy Scarborough	103	0.3	0.5	0.6	0.9	1.3	2.2	3.4	0.8	0.6	
	34002	Science Centre 770 Don Mills Rd. North York	112	0.2	0.4	0.5	0.6	1.3	1.8	2.2	0.6	0.5	
	35033	Evans/Arnold Ave. Etobicoke	119	0.6	0.9	1.1	1.5	2.3	3.3	3.8	1.3	1.1	
	45001	Pickering Fire Hall Pickering	290	0.2	0.4	0.6	0.9	1.4	2.4	3.6	0.7	0.5	
	46025	Mississauga Public Library Mississauga	54	0.4	0.8	1.4	1.9	3.1	3.8	4.1	1.5	1.2	
	59006	City Hall 500 George St. Peterborough	96	0.2	0.3	0.5	1.2	7.0	18.0	19.0	2.3	0.8	
NORTH-WEST	63005	Hospital Archibald/Arthur St. Thunder Bay	53	0.1	0.9	1.6	2.3	4.1	7.1	8.8	2.0	1.0	
	63022	Hospital 35 Algoma St. Thunder Bay	58	0.4	0.8	1.1	1.9	3.7	6.7	8.4	1.7	1.2	
NORTH-EAST	71022	Sault College Queen St. Sault Ste. Marie	35	0.4	2.2	3.8	5.8	10.1	14.6	14.8	4.6	2.3	
	71042	Bonney St. Pumphouse Sault Ste. Marie	39	0.7	2.0	4.1	8.3	14.4	26.8	28.1	6.4	2.8	
	71049	Land Reg. Office Queen St. Sault Ste. Marie	47	0.5	0.8	1.1	2.0	4.4	5.8	5.8	1.8	1.2	
	75010	OPP Station North Bay	41	0.1	0.3	0.5	1.0	1.5	2.5	3.0	0.7	0.4	
	77016	Ash Street Water Tank Sudbury	56	0.4	0.6	0.9	1.6	2.5	3.4	3.7	1.2	1.0	
	77026	19 Lisgar St. Sudbury	44	0.4	0.8	0.9	1.2	2.0	5.8	7.9	1.3	1.0	
	77070	Nickel St. Pump House Copper Cliff	48	0.6	1.1	1.7	2.7	6.3	8.8	9.2	2.4	1.5	
	77076	Post Office Falconbridge	47	0.2	0.4	0.6	1.0	1.8	3.4	4.5	0.9	0.6	

Table 22 Summary of Data: Nickel in Total Suspended Particulate (all values in micrograms per cubic meter)

Ontario Criterion – 24-Hour average: 2.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12002	City Hall 44 Windsor Ave. Windsor	55	.001	.004	.007	.012	.025	.052	.070	.011	.005	NIL
	12005	7730 Riverside Dr. W. Windsor	59	.001	.002	.005	.008	.019	.048	.085	.008	.004	NIL
	12008	467 University Ave. W. Windsor	296	.001	.004	.006	.010	.018	.027	.041	.008	.005	NIL
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	.001	.001	.001	.003	.004	.014	.017	.002	.001	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	53	.001	.001	.003	.005	.009	.016	.017	.004	.001	NIL
	12014	University Met. Stn. College/Calif. St. Windsor	49	.001	.001	.007	.010	.025	.067	.094	.010	.003	NIL
	12015	Sewage Plant Hwy 18/Prospect Windsor	54	.001	.003	.005	.008	.014	.036	.047	.007	.003	NIL

Table 22 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH- WEST	13003	Post Office 10 Center St.											
		Chatham	43	.001	.001	.002	.002	.006	.009	.010	.002	.001	NIL
	13022	RR #3											
		NNW of House	26	.001	.001	.002	.005	.008	.013	.014	.004	.001	NIL
	13023	Blenheim											
		RR #1											
		Behind the Barn	54	.001	.001	.001	.003	.005	.015	.029	.002	.001	NIL
	13024	Blenheim											
		Jackson Farm	52	.001	.001	.001	.003	.005	.020	.031	.003	.001	NIL
	13025	Blenheim											
		RR #2											
		Behind the Barn	47	.001	.001	.002	.003	.005	.008	.008	.002	.001	NIL
	14001	Merlin											
		General Hospital											
WEST- CENTRAL		220 Minton St.	54	.001	.001	.003	.006	.015	.057	.064	.008	.002	NIL
	14016	Sarnia											
		Opposite Lambton G.S.											
		Hwy 40											
		Courtright	124	.001	.002	.003	.006	.011	.042	.045	.005	.003	NIL
	14030	RR #1											
		West of the House											
		Corunna	56	.001	.001	.002	.004	.008	.022	.034	.004	.001	NIL
	14031	RR #1											
		West side of Barn											
		Mooretown	58	.001	.001	.002	.004	.009	.018	.020	.004	.002	NIL
	14064	Centennial Park											
		Front St./CN Tracks											
		Sarnia	57	.001	.002	.004	.006	.027	.054	.056	.008	.002	NIL
CENTRAL	15001	Western Fair Grounds											
		King/Rectory											
		London	53	.001	.001	.002	.003	.005	.012	.014	.002	.001	NIL
	27030	Killaly E./James											
		Port Colborne	58	.029	.049	.089	.218	.403	1.197	1.390	.194	.102	NIL
	27047	Davis/Frazer											
		Port Colborne	58	.018	.024	.063	.146	.850	2.897	3.430	.312	.082	2
	28024	95 Inkerman St.											
		Guelph	54	.001	.002	.003	.005	.012	.092	.142	.008	.003	NIL
	29001	Hughson/Hunter											
		Hamilton	58	.001	.001	.003	.007	.015	.026	.038	.006	.002	NIL
	29008	North Park											
		Hamilton	325	.001	.004	.006	.009	.019	.033	.048	.008	.005	NIL
	29011	Burlington/Leeds											
		Hamilton	69	.003	.005	.008	.012	.018	.024	.028	.009	.007	NIL
CENTRAL	29012	Burlington/Wellington											
		Hamilton	68	.001	.003	.005	.007	.011	.019	.026	.006	.003	NIL
	29017	Chatham/Frid											
		Hamilton	57	.001	.003	.005	.009	.023	.044	.055	.009	.004	NIL
	29025	Barton/Wentworth											
		Hamilton	317	.002	.005	.007	.011	.020	.039	.051	.010	.006	NIL
	29067	450 Hughson St. N.											
		Hamilton	58	.001	.001	.004	.009	.014	.030	.053	.006	.002	NIL
	29085	Upper Wellington/ Inverness											
		Hamilton	55	.001	.001	.002	.006	.013	.023	.023	.005	.001	NIL
	31058	Mosley/Leslie St.											
		Toronto	344	.001	.005	.007	.011	.016	.025	.038	.008	.005	NIL
	33003	Lawrence/Kennedy											
		Scarborough	92	.001	.001	.001	.003	.007	.041	.110	.004	.001	NIL
CENTRAL	34002	Science Centre											
		770 Don Mills Rd.											
		North York	112	.001	.001	.004	.005	.008	.012	.018	.004	.002	NIL
	35003	Elmcrest Ave.											
		Etobicoke	37	.001	.002	.004	.006	.009	.012	.013	.004	.002	NIL
	35033	Evans/Arnold Ave.											
		Etobicoke	119	.001	.004	.005	.007	.012	.026	.036	.006	.003	NIL
	35037	3050 Lakeshore Blvd. W.											
		Etobicoke	99	.003	.006	.009	.012	.023	.176	.239	.017	.008	NIL
	45001	Pickering Fire Hall											
		Pickering	290	.001	.001	.002	.003	.006	.010	.013	.002	.001	NIL

Table 22 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	10	30	PERCENTILES					MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
CENTRAL	46025	Mississauga Public Library												
	59006	Mississauga City Hall 500 George St. Peterborough	54	.001	.001	.003	.005	.008	.018	.025	.004	.002	.002	NIL
NORTH-WEST	63005	Hospital Archibald/Arthur St. Thunder Bay												
	63022	Hospital 35 Algoma St. Thunder Bay	104	.001	.001	.001	.003	.005	.009	.010	.002	.001	.001	NIL
			59	.001	.001	.001	.002	.008	.013	.013	.002	.001	.001	NIL
NORTH-EAST	71022	Sault College Queens St. Sault Ste. Marie	58	.001	.001	.001	.002	.005	.017	.031	.002	.001	.001	NIL
	71049	Land Reg. Office Queen St. Sault Ste. Marie	35	.001	.001	.001	.003	.007	.012	.014	.003	.001	.001	NIL
	75010	OPP Station North Bay	47	.001	.001	.002	.004	.006	.010	.011	.002	.001	.001	NIL
	77016	Ash Street Water Tank Sudbury	41	.001	.001	.001	.004	.007	.009	.010	.002	.001	.001	NIL
	77026	19 Lisgar St. Sudbury	53	.015	.044	.055	.120	.206	.380	.380	.096	.060	.060	NIL
	77070	Nickel St. Pump House Copper Cliff	42	.020	.029	.053	.081	.157	.345	.460	.074	.051	.051	NIL
	77076	Post Office Falconbridge	48	.096	.162	.288	.329	.582	1.200	1.502	.318	.240	.240	NIL
			46	.006	.023	.031	.081	.123	.175	.210	.055	.030	.030	NIL

Table 23

Summary of Data: Copper in Total Suspended Particulate
(all values in micrograms per cubic meter)

Ontario Criterion – 24-Hour average: 50.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	10	30	PERCENTILES					MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
SOUTH-WEST	12002	City Hall 44 Windsor Ave. Windsor												
	12005	7730 Riverside Dr. W. Windsor	55	.01	.01	.02	.03	.07	.18	.20	.03	.02	.02	NIL
	12008	467 University Ave. W. Windsor	57	.02	.03	.04	.05	.12	.27	.27	.06	.04	.04	NIL
	12010	Tecumseh Sewage Stn. Manning Road Windsor	307	.03	.05	.08	.16	.40	.75	.82	.15	.09	.09	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	58	.01	.06	.10	.15	.57	1.16	1.21	.20	.07	.07	NIL
	12014	University Met. Stn. College/Calif. St. Windsor	53	.06	.11	.14	.16	.23	.28	.31	.14	.13	.13	NIL
	12015	Sewage Plant Hwy 18/Prospect Windsor	49	.06	.08	.11	.19	.25	.33	.33	.15	.12	.12	NIL
	13003	Post Office 10 Center St. Chatham	54	.07	.11	.13	.15	.19	.27	.29	.13	.12	.12	NIL
	13022	RR #3 NNW of House Blenheim	43	.05	.08	.10	.13	.21	.66	1.10	.14	.10	.10	NIL
	13023	RR #1 Behind the Barn Blenheim	26	.03	.05	.08	.14	.28	.47	.49	.13	.09	.09	NIL
			54	.02	.06	.09	.11	.17	.26	.26	.10	.07	.07	NIL

Table 23 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH- WEST	13024	Jackson Farm											
	13025	Blenheim RR #2	52	.03	.06	.09	.15	.18	.32	.52	.11	.09	NIL
		Behind the Barn											
	14001	Merlin General Hospital	47	.02	.07	.08	.12	.17	.26	.26	.09	.07	NIL
		220 Minton St.											
	14016	Sarnia Opposite Lambton GS	54	.05	.07	.09	.15	.22	.28	.29	.12	.10	NIL
		Hwy 40											
	14030	Courtright RR #1	124	.02	.09	.16	.21	.38	.84	1.59	.19	.12	NIL
		West of the House											
	14031	Corunna RR #1	58	.07	.12	.14	.19	.31	.49	.56	.17	.14	NIL
WEST- CENTRAL		West side of Barn											
	14064	Mooretown Centennial Park	58	.06	.09	.12	.14	.24	.62	.95	.15	.12	NIL
		Front St./CN Tracks											
		Sarnia											
	15001	Western Fair Grounds King/Rectory	57	.07	.08	.11	.15	.36	.84	.86	.17	.13	NIL
		London											
			53	.16	.23	.34	.38	.52	.71	.72	.33	.30	NIL
	28024	95 Inkerman St. Guelph	54	.10	.16	.21	.33	.53	.89	.95	.28	.23	NIL
	29001	Hughson/Hunter Hamilton	58	.03	.07	.13	.18	.24	.37	.38	.14	.10	NIL
	29008	North Park Hamilton	325	.04	.08	.12	.19	.28	.58	.88	.15	.11	NIL
CENTRAL	29011	Burlington/Leeds Hamilton	69	.12	.18	.27	.32	.48	.71	.83	.29	.25	NIL
	29012	Burlington/Wellington Hamilton	68	.08	.12	.15	.23	.56	.91	1.29	.24	.17	NIL
	29017	Chatham/Frid Hamilton	57	.06	.07	.08	.12	.18	.28	.32	.11	.09	NIL
	29025	Barton/Wentworth Hamilton	317	.09	.17	.22	.32	.46	1.06	1.30	.27	.22	NIL
	29067	450 Hughson St. N. Hamilton	58	.06	.09	.13	.19	.25	.43	.43	.16	.13	NIL
	29085	Upper Wellington/ Inverness											
		Hamilton	55	.05	.10	.16	.19	.29	.36	.41	.16	.13	NIL
	31058	Mosley/Leslie St. Toronto	344	.06	.08	.11	.15	.19	.31	.67	.12	.11	NIL
	31104	26 Breadalbane Toronto	229	.04	.06	.09	.15	.27	.56	.82	.13	.11	NIL
	33003	Lawrence/Kennedy Toronto	92	.04	.06	.09	.12	.16	.22	.41	.10	.08	NIL
NORTH- WEST	34002	Science Centre 770 Don Mills Rd. North York	112	.05	.08	.10	.19	.26	.33	.35	.14	.11	NIL
	35003	Elmcrest Rd. Etobicoke	37	.01	.02	.04	.08	.10	.16	.16	.05	.04	NIL
	35033	Evans/Arnold Ave. Etobicoke	119	.08	.14	.23	.37	.67	1.02	1.14	.31	.23	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	99	.16	.26	.33	.44	.65	1.35	1.55	.39	.33	NIL
	45001	Pickering Fire Hall Pickering	290	.07	.15	.25	.45	.80	1.81	2.10	.37	.24	NIL
	46025	Mississauga Public Library Mississauga	54	.19	.25	.35	.56	.94	1.51	1.71	.48	.37	NIL
	59006	City Hall 500 George St. Peterborough	104	.10	.14	.17	.22	.29	.33	.42	.19	.17	NIL
	63005	Hospital Archibald/Arthur St. Thunder Bay	59	.06	.08	.10	.13	.19	.85	1.02	.15	.11	NIL
	63022	Hospital 35 Algoma St. Thunder Bay	58	.08	.14	.17	.21	.38	.99	1.00	.22	.17	NIL

Table 23 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
NORTH-EAST	71022	Sault College Queen St.											
		Sault Ste. Marie	35	.19	.35	.40	.57	.91	1.26	1.38	.50	.38	NIL
	71042	Bonney St. Pumphouse											
		Sault Ste. Marie	47	.06	.11	.20	.35	.70	1.17	1.41	.30	.18	NIL
	71049	Land Reg. Office, Queen St.											
		Sault Ste. Marie	47	.09	.19	.23	.32	.39	.50	.51	.25	.20	NIL
	75010	OPP Station											
		North Bay	41	.21	.27	.41	.55	.87	1.53	1.70	.49	.40	NIL
	77016	Ash Street Water Tank											
		Sudbury	56	.08	.15	.23	.37	.66	1.23	1.50	.33	.24	NIL
	77026	19 Lisgar St. Sudbury											
		Post Office	44	.14	.22	.28	.39	.51	.75	.80	.32	.27	NIL
	77076	Falconbridge	47	.10	.23	.30	.44	.80	1.15	1.30	.40	.31	NIL

Table 24 **Summary of Data: Cadmium in Total Suspended Particulate**
(all values in micrograms per cubic meter)
 Ontario Criterion – 24-Hour average: 2.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12002	City Hall 44 Windsor Ave.											
		Windsor	55	.001	.001	.001	.003	.006	.021	.024	.003	.001	NIL
	12005	7730 Riverside Dr. W.											
		Windsor	60	.001	.002	.003	.004	.006	.020	.035	.004	.003	NIL
	12008	467 Univeristy Ave. W.											
		Windsor	307	.001	.001	.002	.003	.007	.021	.042	.003	.002	NIL
	12010	Tecumseh Sewage Stn. Manning Rd.											
		Windsor	58	.001	.001	.001	.002	.003	.005	.008	.002	.001	NIL
	12013	Filtration Plant 3665 Wyandotte St. E.											
		Windsor	53	.001	.001	.002	.003	.005	.009	.011	.002	.002	NIL
	12014	University Met. Stn. College/Calif. St.											
		Windsor	49	.001	.001	.002	.004	.007	.010	.010	.003	.002	NIL
	12015	Sewage Plant Hwy 18/Prospect											
		Windsor	54	.001	.001	.002	.004	.009	.019	.022	.004	.002	NIL
	13003	Post Office 10 Center St.											
		Chatham	43	.001	.001	.001	.001	.001	.001	.002	.001	.001	NIL
	13022	RR #3 NNW of House											
		Blenheim	26	.001	.001	.001	.001	.0001	.001	.001	.000	.000	NIL
	13023	RR #1 Behind the Barn											
		Blenheim	54	.001	.001	.001	.001	.001	.002	.002	.001	.000	NIL
	13024	Jackson Farm											
		Blenheim	52	.001	.001	.001	.001	.001	.002	.002	.001	.001	NIL
	13025	RR #2 Behind the Barn											
		Merlin	47	.001	.001	.001	.001	.001	.002	.002	.001	.001	NIL
	14001	General Hospital 220 Minton St.											
		Sarnia	54	.001	.001	.001	.001	.001	.003	.003	.001	.001	NIL
	14016	Opposite Lambton GS Hwy 40											
		Courtright	124	.001	.001	.001	.001	.002	.004	.004	.001	.001	NIL
	14030	RR #1 West of the House											
		Corunna	58	.001	.001	.001	.001	.002	.008	.009	.001	.001	NIL

Table 24 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH- WEST	14031	RR #1 West side of Barn Mooretown	58	.001	.001	.001	.001	.002	.002	.003	.001	.001	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	57	.001	.001	.001	.001	.002	.003	.004	.001	.001	NIL
	15001	Western Fair Grounds King/Rectory London	53	.001	.001	.001	.001	.004	.008	.009	.001	.001	NIL
WEST- CENTRAL	29001	Hughson/Hunter Hamilton	58	.001	.001	.001	.001	.003	.005	.006	.001	.001	NIL
	29008	North Park Hamilton	325	.001	.001	.001	.001	.002	.005	.009	.001	.001	NIL
	29011	Burlington/Leeds Hamilton	69	.001	.001	.001	.002	.005	.007	.011	.002	.001	NIL
	29012	Burlington/Wellington Hamilton	68	.001	.001	.001	.001	.002	.006	.007	.001	.001	NIL
	29017	Chatham/Frid Hamilton	57	.001	.001	.001	.001	.003	.006	.007	.001	.001	NIL
	29025	Barton/Wentworth Hamilton	317	.001	.001	.001	.002	.004	.016	.023	.002	.001	NIL
	29067	450 Hughson St. N. Hamilton	58	.001	.001	.001	.002	.003	.007	.008	.002	.001	NIL
	29085	Upper Wellington/ Inverness Hamilton	55	.001	.001	.001	.001	.003	.004	.004	.001	.001	NIL
CENTRAL	31018	35 Bathurst St. Toronto	300	.001	.002	.003	.004	.008	.018	.022	.004	.002	NIL
	31058	Mosley/Leslie St. Toronto	344	.001	.002	.003	.005	.009	.021	.041	.004	.003	NIL
	31064	17 Berkshire Ave. Toronto	297	.001	.001	.002	.004	.008	.020	.110	.004	.002	NIL
	31065	633 Eastern Ave. Toronto	307	.001	.002	.003	.004	.009	.019	.027	.004	.002	NIL
	31099	Pal Elec. Pape Ave. Toronto	140	.001	.001	.003	.005	.009	.019	.024	.004	.002	NIL
	33003	Lawrence/Kennedy Toronto	92	.001	.001	.001	.001	.002	.004	.004	.001	.001	NIL
	34002	Science Centre 770 Don Mills Rd. North York	112	.001	.001	.001	.002	.002	.004	.005	.001	.001	NIL
	35003	Elmcrest Rd. Etobicoke	37	.001	.001	.001	.001	.002	.005	.005	.001	.001	NIL
	35033	Evans/Arnold Ave. Etobicoke	119	.001	.002	.002	.003	.004	.006	.007	.002	.002	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	266	.001	.003	.005	.013	.053	.140	.384	.018	.006	NIL
	45001	Pickering Fire Hall Pickering	290	.001	.001	.001	.001	.002	.005	.012	.001	.001	NIL
	46025	Mississauga Public Library Mississauga	54	.001	.001	.001	.001	.003	.005	.006	.001	.001	NIL
	59006	City Hall 500 George St. Peterborough	104	.001	.001	.001	.001	.002	.003	.004	.001	.000	NIL
NORTH- WEST	63005	Hospital Archibald/Arthur St. Thunder Bay	59	.001	.001	.001	.001	.001	.001	.001	.000	.000	NIL
	63022	Hospital 35 Algoma St. Thunder Bay	58	.001	.001	.001	.001	.001	.002	.002	.001	.000	NIL

Table 25

Summary of Data: Chromium in Total Suspended Particulate (all values in micrograms per cubic meter)

Ontario Criterion - 24-Hour average: 1.5 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12005	7730 Riverside Dr. W. Windsor	59	.001	.001	.003	.004	.008	.026	.030	.004	.002	NIL
	12008	467 University Ave. W. Windsor	307	.001	.002	.004	.006	.010	.024	.043	.005	.003	NIL
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	.001	.001	.003	.005	.008	.012	.016	.004	.002	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	53	.001	.004	.005	.010	.019	.026	.029	.008	.005	NIL
	12014	University Met. Stn. College/Calif. St. Windsor	49	.001	.001	.004	.008	.014	.025	.026	.006	.002	NIL
	12015	Sewage Plant Hwy 18/Prospect Windsor	54	.001	.005	.008	.011	.016	.036	.037	.009	.006	NIL
	13003	Post Office 10 Center St. Chatham	43	.001	.002	.003	.005	.008	.051	.065	.006	.002	NIL
	13022	RR #3 NNW of House Blenheim	26	.001	.003	.007	.011	.019	.037	.042	.010	.004	NIL
	13023	RR #1 Behind the Barn Blenheim	54	.001	.003	.005	.007	.010	.017	.019	.005	.004	NIL
	13024	Jackson Farm Blenheim	52	.001	.002	.003	.005	.007	.022	.032	.004	.002	NIL
	13025	RR #2 Behind the Barn Merlin	47	.001	.001	.003	.004	.006	.009	.009	.003	.002	NIL
	14001	General Hospital 220 Minton St. Sarnia	54	.001	.001	.002	.004	.006	.011	.014	.003	.001	NIL
	14016	Opposite Lambton GS Hwy 40 Courtright	124	.001	.001	.002	.004	.009	.012	.014	.003	.002	NIL
	14030	RR #1 West of the House Corunna	58	.001	.001	.003	.005	.009	.030	.053	.005	.002	NIL
	14031	RR #1 West side of Barn Mooretown	58	.001	.001	.003	.005	.009	.027	.035	.005	.002	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	57	.001	.002	.003	.004	.005	.012	.013	.003	.002	NIL
	15001	Western Fair Grounds King/Rectory London	52	.001	.001	.002	.003	.006	.008	.009	.002	.001	NIL
WEST-CENTRAL	28024	95 Inkerman St. Guelph	54	.001	.002	.003	.004	.006	.020	.044	.004	.002	NIL
	29001	Hughson/Hunter Hamilton	58	.001	.002	.006	.010	.029	.083	.140	.011	.004	NIL
	29008	North Park Hamilton	324	.002	.005	.010	.017	.031	.061	.097	.014	.008	NIL
	29011	Burlington/Leeds Hamilton	69	.006	.015	.022	.029	.054	.375	.420	.035	.021	NIL
	29012	Burlington/Wellington Hamilton	68	.003	.004	.007	.011	.021	.029	.030	.010	.006	NIL
	29017	Chatham/Frid Hamilton	57	.001	.003	.008	.014	.030	.071	.086	.013	.005	NIL
	29025	Barton/Wentworth Hamilton	317	.001	.005	.010	.015	.042	.130	.691	.020	.008	NIL
	29067	450 Hughson St. N. Hamilton	58	.001	.004	.007	.015	.026	.036	.040	.011	.006	NIL
	29085	Upper Wellington/ Inverness Hamilton	54	.001	.002	.005	.009	.019	.040	.057	.008	.004	NIL

Table 25 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
CENTRAL	31058	Mosley/Leslie St. Toronto	344	.002	.006	.010	.015	.025	.064	.098	.013	.008	NIL
	31064	17 Berkeshire Ave. Toronto	321	.001	.005	.009	.015	.039	.093	.200	.016	.006	NIL
	31065	633 Eastern Ave. Toronto	276	.006	.020	.030	.070	.178	.404	.597	.066	.028	NIL
	31099	Pal Elec. Pape Ave. Toronto	140	.001	.008	.019	.030	.074	.141	.240	.029	.011	NIL
	31104	26 Breadalbane Toronto	229	.001	.003	.006	.008	.015	.024	.043	.007	.003	NIL
	33003	Lawrence/Kennedy Toronto	92	.001	.001	.002	.004	.007	.019	.024	.003	.001	NIL
	34002	Science Centre 770 Don Mills Rd. North York	110	.001	.001	.003	.004	.007	.013	.021	.003	.002	NIL
	35003	Elmcrest Rd. Etobicoke	37	.001	.001	.002	.003	.005	.009	.009	.002	.001	NIL
	35033	Evans/Arnold Ave. Etobicoke	100	.001	.002	.004	.007	.010	.027	.131	.006	.002	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	289	.001	.006	.010	.014	.028	.090	.200	.014	.007	NIL
	45001	Pickering Fire Hall Pickering	290	.001	.001	.003	.004	.006	.011	.017	.003	.002	NIL
	46025	Mississauga Public Library Mississauga	54	.001	.004	.007	.010	.014	.025	.028	.008	.005	NIL
	59006	City Hall 500 George St. Peterborough	104	.001	.003	.005	.016	.130	.170	.300	.036	.007	NIL
NORTH- WEST	63005	Hospital Archibald/Arthur St. Thunder Bay	59	.001	.002	.004	.006	.010	.016	.019	.005	.003	NIL
	63022	Hospital 35 Algoma St. Thunder Bay	58	.001	.001	.001	.003	.007	.014	.016	.003	.001	NIL

Table 26 **Summary of Data: Zinc in Suspended Particulate Matter**
(all values in micrograms per cubic meter)
No Ontario Criterion

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
SOUTH- WEST	12005	7730 Riverside Dr. E. Windsor	36	0.1	0.1	0.1	0.1	0.2	0.7	0.7	0.1	0.0
	12008	467 University Ave. W. Windsor	170	0.1	0.1	0.1	0.3	0.4	0.7	0.8	0.2	0.1
	12015	Sewage Plant Hwy 18/Prospect Windsor	26	0.1	0.1	0.1	0.2	0.4	0.5	0.5	0.2	0.1
	13023	RR #1 Behind the Barn Blenheim	32	0.1	0.1	0.3	0.3	0.4	0.5	0.5	0.2	0.1
	14016	Opposite Lambton G.S. Hwy 40 Courtright	87	0.1	0.1	0.1	0.2	0.4	0.5	0.6	0.2	0.1
	14064	Centennial Park Front St./CN Tracks Sarnia	34	0.1	0.1	0.3	0.3	0.3	0.4	0.4	0.2	0.1
	15001	Western Fair Grounds King/Rectory London	30	0.1	0.2	0.2	0.2	0.3	0.6	0.7	0.2	0.1
	WEST- CENTRAL	28024	95 Inkerman St. Guelph	28	0.1	0.1	0.1	0.2	0.4	1.0	1.2	0.2
	29011	Burlington/Leeds Hamilton	46	0.6	0.7	0.9	1.4	1.9	2.9	3.3	1.1	1.0

Table 26 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN
				10	30	50	70	90	99			
WEST-CENTRAL	29012	Burlington/Wellington Hamilton	43	0.1	0.1	0.3	0.4	0.6	0.8	0.8	0.3	0.2
	29017	Chatham/Frid Hamilton	31	0.1	0.1	0.1	0.2	0.3	0.6	0.7	0.1	0.1
	29025	Barton/Wentworth Hamilton	204	0.1	0.2	0.5	0.7	1.3	4.0	9.0	0.7	0.3
	29085	Upper Wellington/Inverness Hamilton	34	0.1	0.1	0.1	0.2	0.3	0.8	1.0	0.2	0.1
CENTRAL	31018	35 Bathurst St. Toronto	205	0.1	0.1	0.2	0.4	1.0	1.7	1.8	0.4	0.2
	31058	Mosley/Leslie Sts. Toronto	216	0.1	0.1	0.2	0.6	1.3	3.4	4.2	0.6	0.2
	31064	17 Berkeshire Ave. Toronto	235	0.1	0.1	0.4	0.8	1.2	2.0	3.8	0.5	0.2
	31065	633 Eastern Ave. Toronto	205	0.1	0.3	0.4	0.6	1.3	3.0	3.2	0.6	0.3
	31104	26 Breadalbane Toronto	224	0.1	0.1	0.1	0.3	0.8	1.2	1.6	0.3	0.1
	31120	Junction Triangle Perth Ave. Toronto	31	0.1	0.3	0.3	0.4	0.6	0.8	0.8	0.3	0.3
	34002	Science Centre 770 Don Mills Rd. North York	42	0.1	0.1	0.1	0.3	0.4	0.4	0.4	0.2	0.1
	35003	Elmcrest Rd. Etobicoke	27	0.2	0.3	0.3	0.4	0.4	0.6	0.7	0.3	0.3
	35033	Evans/Arnold Ave. Etobicoke	54	0.1	0.1	0.2	0.3	0.5	0.5	0.6	0.2	0.1
	35037	3050 Lakeshore Blvd. W. Etobicoke	164	0.1	0.2	0.5	0.8	1.8	3.5	5.0	0.7	0.4
	45001	Pickering Fire Hall Pickering	142	0.1	0.1	0.1	0.2	0.3	0.8	0.8	0.1	0.1
	46025	Mississauga Public Library Mississauga	52	0.1	0.2	0.2	0.3	0.6	0.7	0.8	0.3	0.2
NORTH-WEST	63005	Hospital Archibald/Arthur St. Thunder Bay	59	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.3	0.2
	63022	Hospital 35 Algoma St. N. Thunder Bay	58	0.1	0.2	0.2	0.4	0.5	0.5	0.6	0.3	0.2
NORTH-EAST	71042	Bonney St. Pumphouse Sault Ste. Marie	28	0.4	0.5	0.6	0.8	1.0	1.2	1.3	0.7	0.6
	71049	Land Reg. Office Queen St. Sault Ste. Marie	27	0.1	0.4	0.4	0.5	0.6	1.1	1.2	0.4	0.3

Table 27 Summary of Data: Manganese in Total Suspended Particulate (all values in micrograms per cubic meter)

Ontario Criterion – 24-Hour average: 50.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12002	City Hall 44 Windsor Ave. Windsor	55	.019	.029	.039	.064	.120	.198	.200	.056	.036	NIL
	12005	7730 Riverside Dr. W. Windsor	58	.009	.020	.027	.043	.071	.187	.343	.040	.026	NIL
	12008	467 University Ave. W. Windsor	307	.013	.028	.045	.066	.116	.210	.250	.055	.037	NIL
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	.001	.012	.019	.022	.032	.060	.063	.019	.009	NIL

Table 27 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERIA 24-HR.
				10	30	50	70	90	99				
SOUTH- WEST	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	53	.011	.033	.047	.061	.128	.190	.200	.057	.034	NIL
	12014	University Met. Stn. College/Calif. St. Windsor	49	.010	.040	.058	.079	.118	.194	.219	.065	.037	NIL
	12015	Sewage Plant Hwy 18/Prospect Windsor	55	.018	.039	.070	.095	.157	.203	.221	.078	.059	NIL
	13003	Post Office 10 Center St. Chatham	43	.007	.015	.023	.032	.055	.101	.104	.030	.019	NIL
	13022	RR #3 NNW of House Blenheim	23	.023	.032	.044	.060	.131	.206	.208	.063	.047	NIL
	13023	RR #1 Behind the Barn Blenheim	47	.006	.012	.020	.035	.059	.117	.117	.029	.018	NIL
	13024	Jackson Farm Blenheim	46	.004	.009	.015	.031	.054	.083	.095	.024	.014	NIL
	13025	RR #2 Behind the Barn Merlin	41	.002	.009	.017	.023	.040	.106	.165	.021	.010	NIL
	14001	General Hospital 220 Minton St. Sarnia	54	.005	.012	.020	.030	.056	.098	.098	.026	.016	NIL
	14016	Opposite Lambton GS Hwy 40 Courtright	124	.004	.010	.017	.025	.042	.062	.115	.021	.012	NIL
	14030	RR #1 West of the House Corunna	51	.002	.006	.018	.025	.038	.093	.099	.021	.010	NIL
	14031	RR #1 West side of Barn Mooretown	52	.001	.004	.014	.024	.042	.100	.140	.020	.008	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	57	.006	.013	.024	.031	.044	.065	.066	.024	.019	NIL
	15001	Western Fair Grounds King/Rectory London	53	.005	.020	.028	.034	.077	.111	.115	.033	.019	NIL
WEST- CENTRAL	28024	95 Inkerman St. Guelph	54	.009	.022	.038	.058	.272	.503	.563	.085	.036	NIL
	29001	Hughson/Hunter Hamilton	56	.013	.032	.076	.122	.373	.752	.857	.143	.065	NIL
	29008	North Park Hamilton	323	.038	.092	.174	.335	.721	1.151	1.497	.285	.169	NIL
	29011	Burlington/Leeds Hamilton	55	.086	.183	.276	.362	.586	.879	.913	.305	.239	NIL
	29012	Burlington/Wellington Hamilton	68	.034	.063	.111	.176	.341	.566	.671	.156	.107	NIL
	29017	Chatham/Frid Hamilton	55	.024	.041	.077	.150	.405	.984	.985	.157	.084	NIL
	29067	450 Hughson St. N. Hamilton	58	.013	.043	.073	.169	.504	.797	.850	.175	.075	NIL
	29085	Upper Wellington/ Inverness Hamilton	52	.019	.033	.055	.112	.301	.538	.585	.116	.063	NIL
CENTRAL	31058	Mosley/Leslie St. Toronto	344	.013	.031	.044	.062	.091	.190	.248	.051	.034	NIL
	31104	26 Breadalbane Toronto	229	.012	.023	.033	.049	.080	.137	.159	.040	.027	NIL
	31120	Junction Triangle Perth Ave. Toronto	80	.007	.030	.038	.056	.094	.162	.170	.048	.026	NIL
	33003	Lawrence/Kennedy Toronto	92	.009	.017	.020	.028	.049	.069	.110	.025	.019	NIL
	34002	Science Centre 770 Don Mills Rd. North York	112	.004	.011	.016	.022	.041	.061	.062	.019	.012	NIL

Table 27 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
CENTRAL	35003	Elmcrest Rd. Etobicoke	37	.006	.017	.030	.039	.059	.092	.104	.031	.020	NIL
	35033	Evans/Arnold Ave. Etobicoke	119	.022	.035	.044	.056	.078	.118	.143	.048	.042	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	99	.010	.019	.029	.039	.062	.096	.122	.032	.022	NIL
	45001	Pickering Fire Hall Pickering	290	.006	.010	.020	.028	.050	.080	.101	.023	.016	NIL
	46025	Mississauga Public Library Mississauga	54	.016	.032	.047	.079	.130	.218	.275	.064	.041	NIL
	59006	City Hall 500 George St. Peterborough	104	.004	.010	.012	.023	.040	.062	.064	.018	.011	NIL
NORTH-WEST	63022	Hospital 35 Algoma St. Thunder Bay	58	.001	.010	.026	.040	.086	.163	.174	.035	.015	NIL
NORTH-EAST	71022	Sault College Queen St. Sault Ste. Marie	31	.088	.170	.235	.440	.673	.928	.981	.326	.238	NIL
	71042	Bonney St. Pumphouse Sault Ste. Marie	26	.108	.255	.478	.725	.938	1.319	1.378	.518	.382	NIL
	71049	Land Reg. Office Queen St. Sault Ste. Marie	47	.029	.041	.056	.096	.195	.300	.323	.087	.063	NIL

Table 28 **Summary of Data: Vanadium in Total Suspended Particulate**
(all values in micrograms per cubic meter)
 Ontario Criterion – 24-Hour average: 2.0 ug/m³

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	12005	7730 Riverside Dr. W. Windsor	54	.002	.003	.004	.005	.013	.028	.032	.006	.004	NIL
	12008	467 University Ave. W. Windsor	307	.002	.003	.005	.007	.012	.020	.034	.006	.004	NIL
	12010	Tecumseh Sewage Stn. Manning Rd. Windsor	58	.001	.001	.001	.002	.003	.011	.018	.002	.001	NIL
	12013	Filtration Plant 3665 Wyandotte St. E. Windsor	53	.002	.004	.004	.007	.009	.020	.023	.006	.005	NIL
	12014	University Met. Stn. College/Calif. St. Windsor	49	.002	.004	.005	.008	.015	.021	.021	.007	.005	NIL
	12015	Sewage Plant Hwy 18/Prospect Windsor	55	.003	.004	.005	.007	.012	.017	.017	.007	.006	NIL
	13003	Post Office 10 Center St. Chatham	43	.001	.003	.004	.005	.008	.013	.014	.004	.003	NIL
	14001	General Hospital 220 Mitton St. Sarnia	54	.002	.004	.005	.010	.025	.102	.141	.013	.006	NIL
	14016	Opposite Lambton GS Hwy 40 Courtright	124	.001	.003	.004	.007	.015	.068	.080	.008	.004	NIL
	14030	RR #1 West of the House Corunna	51	.001	.002	.004	.006	.010	.022	.026	.005	.004	NIL
	14031	RR #1 West side of Barn Mooretown	52	.001	.003	.004	.006	.010	.018	.020	.005	.004	NIL

Table 28 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF SAMPLES	PERCENTILES						MAX. CONC.	ARITH. MEAN	GEOM. MEAN	TIMES ABOVE CRITERION 24-HR.
				10	30	50	70	90	99				
SOUTH-WEST	14064	Centennial Park Front St./CN Tracks Sarnia	57	.003	.005	.010	.025	.056	.111	.121	.021	.011	NIL
	15001	Western Fair Grounds King/Rectory London	53	.001	.002	.003	.004	.007	.008	.009	.003	.002	NIL
WEST-CENTRAL	28024	95 Inkerman St. Guelph	54	.001	.001	.002	.004	.007	.008	.008	.003	.002	NIL
	29001	Hughson/Hunter Hamilton	58	.001	.002	.004	.012	.029	.045	.052	.010	.004	NIL
	29008	North Park Hamilton	325	.002	.005	.008	.012	.023	.040	.048	.011	.007	NIL
	29011	Burlington/Leeds Hamilton	69	.003	.006	.010	.014	.029	.052	.052	.013	.009	NIL
	29012	Burlington/Wellington Hamilton	68	.001	.004	.006	.009	.017	.029	.029	.008	.005	NIL
	29017	Chatham/Frid Hamilton	57	.003	.005	.008	.015	.040	.067	.081	.014	.009	NIL
	29025	Barton/Wentworth Hamilton	317	.003	.006	.008	.012	.024	.053	.076	.012	.008	NIL
	29067	450 Hughson St. N. Hamilton	58	.002	.004	.007	.010	.018	.025	.026	.008	.006	NIL
	29085	Upper Wellington/ Inverness Hamilton	55	.001	.003	.005	.008	.021	.032	.034	.008	.005	NIL
CENTRAL	31058	Mosley/Leslie St. Toronto	344	.003	.006	.008	.012	.020	.038	.063	.010	.007	NIL
	31104	26 Breadalbane Toronto	229	.002	.003	.005	.007	.013	.024	.027	.006	.004	NIL
	33003	Lawrence/Kennedy Toronto	92	.001	.002	.003	.004	.007	.010	.017	.003	.002	NIL
	34002	Science Centre 770 Don Mills Rd. North York	112	.001	.001	.003	.004	.006	.009	.020	.003	.002	NIL
	35003	Elmcrest Rd. Etobicoke	37	.001	.001	.002	.004	.009	.022	.030	.004	.002	NIL
	35033	Evans/Arnold Ave. Etobicoke	119	.001	.004	.006	.008	.013	.020	.094	.007	.004	NIL
	35037	3050 Lakeshore Blvd. W. Etobicoke	99	.002	.003	.003	.004	.009	.014	.014	.004	.003	NIL
	45001	Pickering Fire Hall Pickering	290	.001	.001	.002	.004	.007	.012	.083	.003	.002	NIL
	46025	Mississauga Public Library Mississauga	54	.001	.003	.005	.007	.012	.020	.020	.006	.004	NIL
NORTH-WEST	59006	City Hall 500 George St. Peterborough	104	.001	.001	.001	.004	.010	.015	.016	.003	.001	NIL
	63022	Hospital 35 Algoma St. Thunder Bay	58	.001	.002	.003	.006	.015	.028	.033	.006	.003	NIL

Table 29/1981 Ontario's Air Pollution Index

Date Started:	TORONTO	MARCH 23, 1970	
	HAMILTON	JUNE 15, 1970	
	SUDBURY	JANUARY 16, 1971	
	WINDSOR	MARCH 19, 1971	
	HAPPY VALLEY	MAY 13, 1971	(Closed Jan. 1975)
	WELLAND	JANUARY 1, 1974	(Closed Oct. 1978)
	NIAGARA FALLS	NOVEMBER 1, 1974	
	CONISTON	FEBRUARY 18, 1975	
	NEW SUDBURY	MARCH 1, 1976	
	SARNIA	DECEMBER 1, 1977	
	ST. CATHARINES	SEPTEMBER 14, 1979	

YEAR	CITY	NUMBER OF OCCASIONS		MAXIMUM INDEX	DATE OF MAXIMUM
		≤ 32	≤ 50		
1970	TORONTO	17	2	56	OCT. 8
	HAMILTON	2	1	56	OCT. 8
1971	TORONTO	19	1	52	APR. 13
	HAMILTON	23	NIL	48	OCT. 21
	SUDBURY	26	3	87	DEC. 11
	WINDSOR	2	NIL	33	NOV. 10
	HAPPY VALLEY	20	7	64	NOV. 21
1972	TORONTO	2	NIL	45	FEB. 13
	HAMILTON	6	NIL	41	FEB. 13
	SUDBURY	7	1	79	JUNE 12
	WINDSOR	9	1	53	JAN. 29
	HAPPY VALLEY	20	11	139	MAR. 23
1973	TORONTO	3	NIL	43	OCT. 24
	HAMILTON	2	NIL	34	FEB. 14
	SUDBURY	NIL	NIL	26	MAR. 14
	WINDSOR	7	NIL	44	FEB. 19
	HAPPY VALLEY	19	10	94	AUG. 21
1974	TORONTO	3	1	50	OCT. 29
	HAMILTON	11	NIL	44	OCT. 29
	SUDBURY	1	NIL	32	JULY 13
	WINDSOR	2	NIL	41	JAN. 7
	HAPPY VALLEY	24	13	116	APR. 23
	WELLAND	46	15	77	OCT. 6
	NIAGARA FALLS	NIL	NIL	20	NOV. 9
1975	TORONTO	2	1	62	NOV. 20
	HAMILTON	10	NIL	38	OCT. 24
	SUDBURY	NIL	NIL	30	FEB. 1
	WINDSOR	NIL	NIL	28	FEB. 11
	WELLAND	NIL	NIL	23	JAN. 24
	NIAGARA FALLS	NIL	NIL	21	NOV. 24
	CONISTON	NIL	NIL	30	MAY 13
1976	TORONTO	1	NIL	33	OCT. 3
	HAMILTON	8	NIL	41	DEC. 16
	SUDBURY	NIL	NIL	28	JUNE 6
	WINDSOR	1	NIL	34	DEC. 16
	WELLAND	NIL	NIL	24	DEC. 16
	NIAGARA FALLS	NIL	NIL	25	FEB. 21
	CONISTON	NIL	NIL	29	SEPT. 16
	NEW SUDBURY	NIL	NIL	29	APR. 2, 3 & JUNE 20
1977	TORONTO	4	NIL	36	JAN. 15
	HAMILTON	10	NIL	44	MAR. 12
	SUDBURY	NIL	NIL	24	JUNE 11
	WINDSOR (12008)	1	NIL	33	APR. 19
	WELLAND	NIL	NIL	22	JAN. 24, 25
	NIAGARA FALLS	NIL	NIL	28	FEB. 21
	CONISTON	NIL	NIL	25	APR. 25
	WINDSOR (12016)	NIL	NIL	29	APR. 19
	NEW SUDBURY	1	NIL	39	JUNE 11
	SARNIA	NIL	NIL	15	DEC. 13

Table 29 – Continued

YEAR	CITY	NUMBER OF OCCASIONS		MAXIMUM INDEX	DATE OF MAXIMUM
		≤ 32	≤ 50		
1978	TORONTO	2	NIL	45	NOV. 5
	HAMILTON	7	NIL	43	NOV. 4
	SUDBURY	NIL	NIL	31	JAN. 22
	WINDSOR (12008)	1	NIL	33	APR. 19
	WELLAND	NIL	NIL	24	MAR. 15
	NIAGARA FALLS	NIL	NIL	23	NOV. 4, MAR. 11
	CONISTON	3	NIL	34	FEB. 7
	WINDSOR (12016)	NIL	NIL	28	FEB. 18
	NEW SUDBURY	1	NIL	42	FEB. 2
	SARNIA	3	NIL	41	JAN. 24
1979	TORONTO	2	NIL	35	OCT. 18
	HAMILTON	23	1	55	DEC. 22
	SUDBURY	NIL	NIL	18	JULY 7
	WINDSOR (12008)	NIL	NIL	31	FEB. 20
	NIAGARA FALLS	NIL	NIL	27	FEB. 21
	CONISTON	NIL	NIL	31	FEB. 14
	WINDSOR (12016)	NIL	NIL	27	FEB. 21
	NEW SUDBURY	NIL	NIL	28	FEB. 14
	SARNIA	2	NIL	43	FEB. 20
	ST. CATHARINES	NIL	NIL	29	NOV. 6
1980	TORONTO	NIL	NIL	31	DEC. 8
	HAMILTON	5	NIL	40	OCT. 16
	SUDBURY	NIL	NIL	23	OCT. 16
	WINDSOR (12008)	NIL	NIL	25	FEB. 8, 9
	WINDSOR (12016)	NIL	NIL	25	DEC. 29
	NIAGARA FALLS	NIL	NIL	18	MAY 24
	CONISTON	NIL	NIL	30	FEB. 10, MAR. 9
	NEW SUDBURY	NIL	NIL	24	JULY 3, OCT. 16
	SARNIA	1	NIL	39	MAR. 20
	ST. CATHARINES	NIL	NIL	28	FEB. 20
1981	TORONTO	3	NIL	43	NOV. 14
	HAMILTON	8	NIL	38	NOV. 15
	SUDBURY	NIL	NIL	21	JAN. 31
	WINDSOR (12008)	1	NIL	42	NOV. 17
	WINDSOR (12016)	NIL	NIL	31	NOV. 17
	NIAGARA FALLS	NIL	NIL	25	JAN. 14
	CONISTON	NIL	NIL	20	NOV. 25
	NEW SUDBURY	NIL	NIL	22	JAN. 28, 29
	SARNIA	1	NIL	34	FEB. 16
	ST. CATHARINES	NIL	NIL	27	JAN. 14, 15

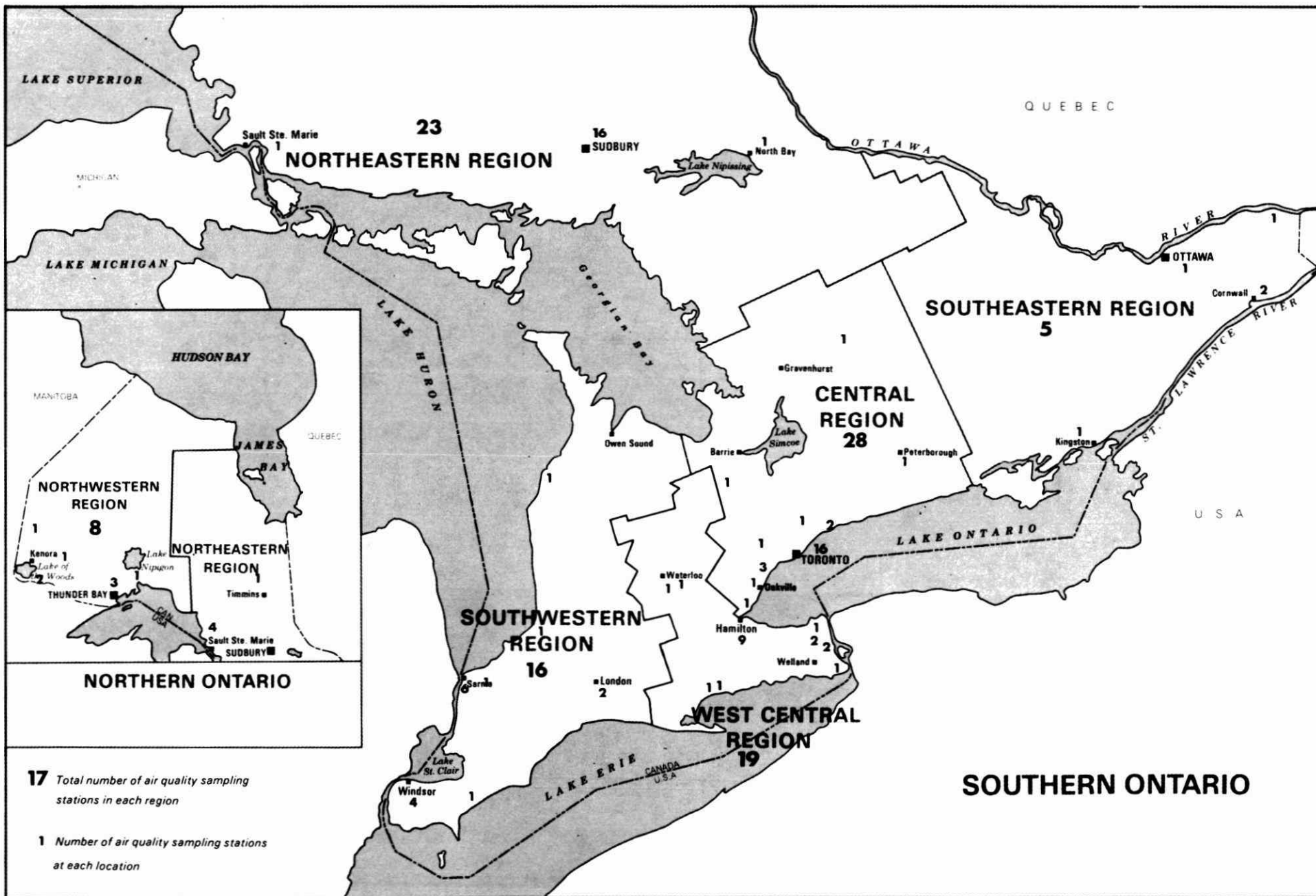


Figure 1. Locations of continuous sampling stations in Ontario.

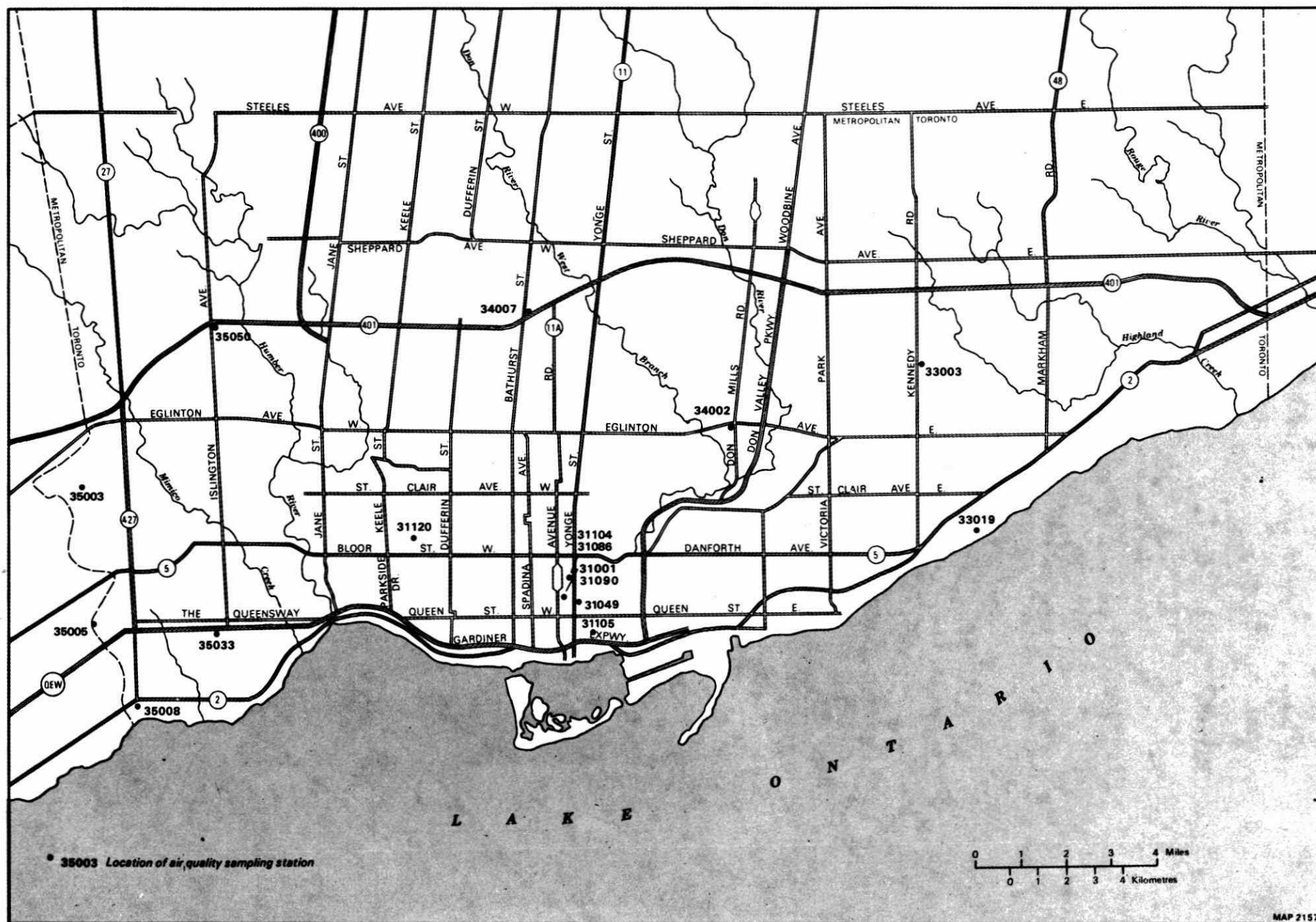


Figure 2. Locations of continuous sampling stations in Metropolitan Toronto.



Figure 3. Locations of continuous sampling stations in Hamilton.

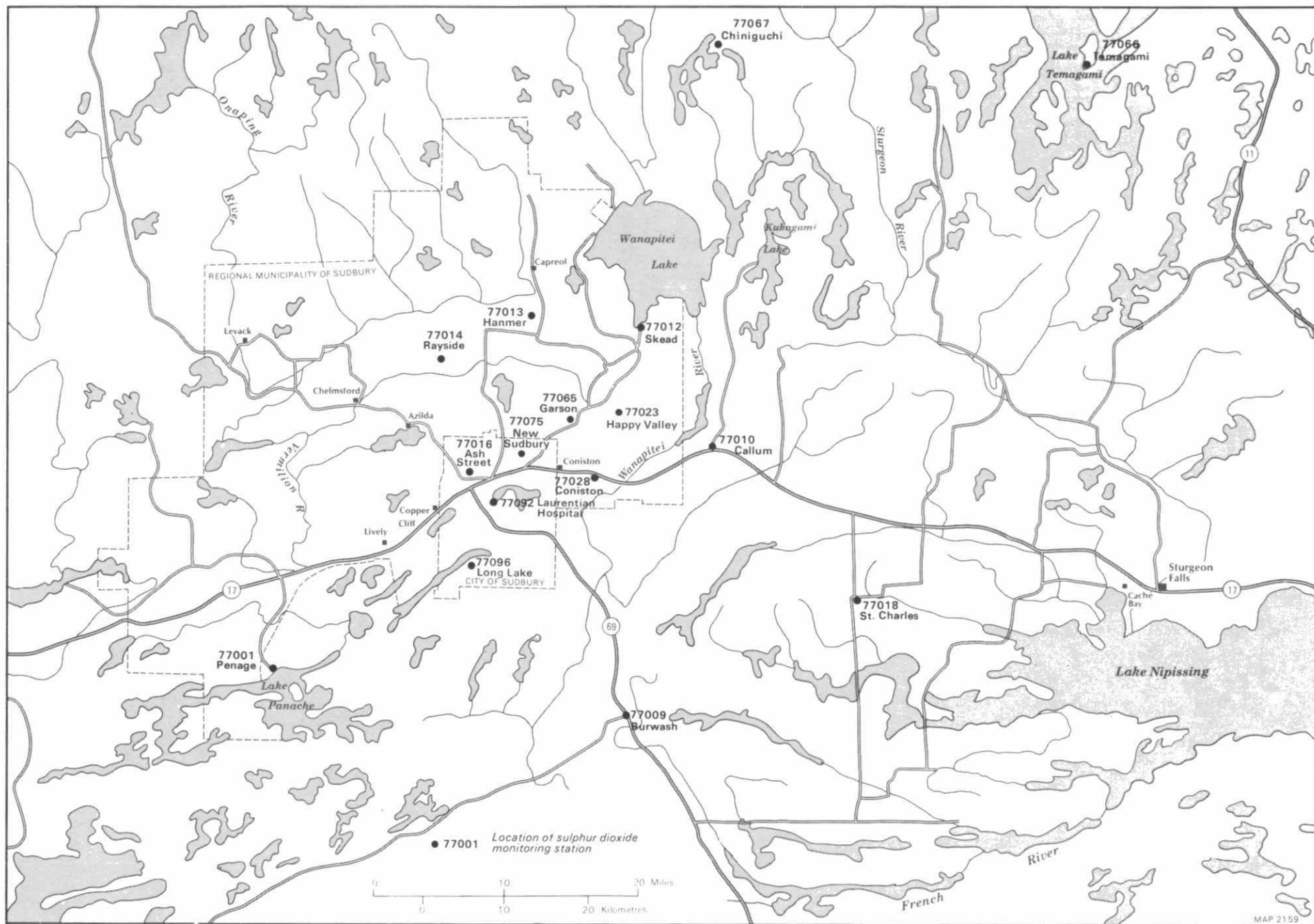


Figure 4. Locations of sulphur dioxide monitoring stations in the Sudbury area.

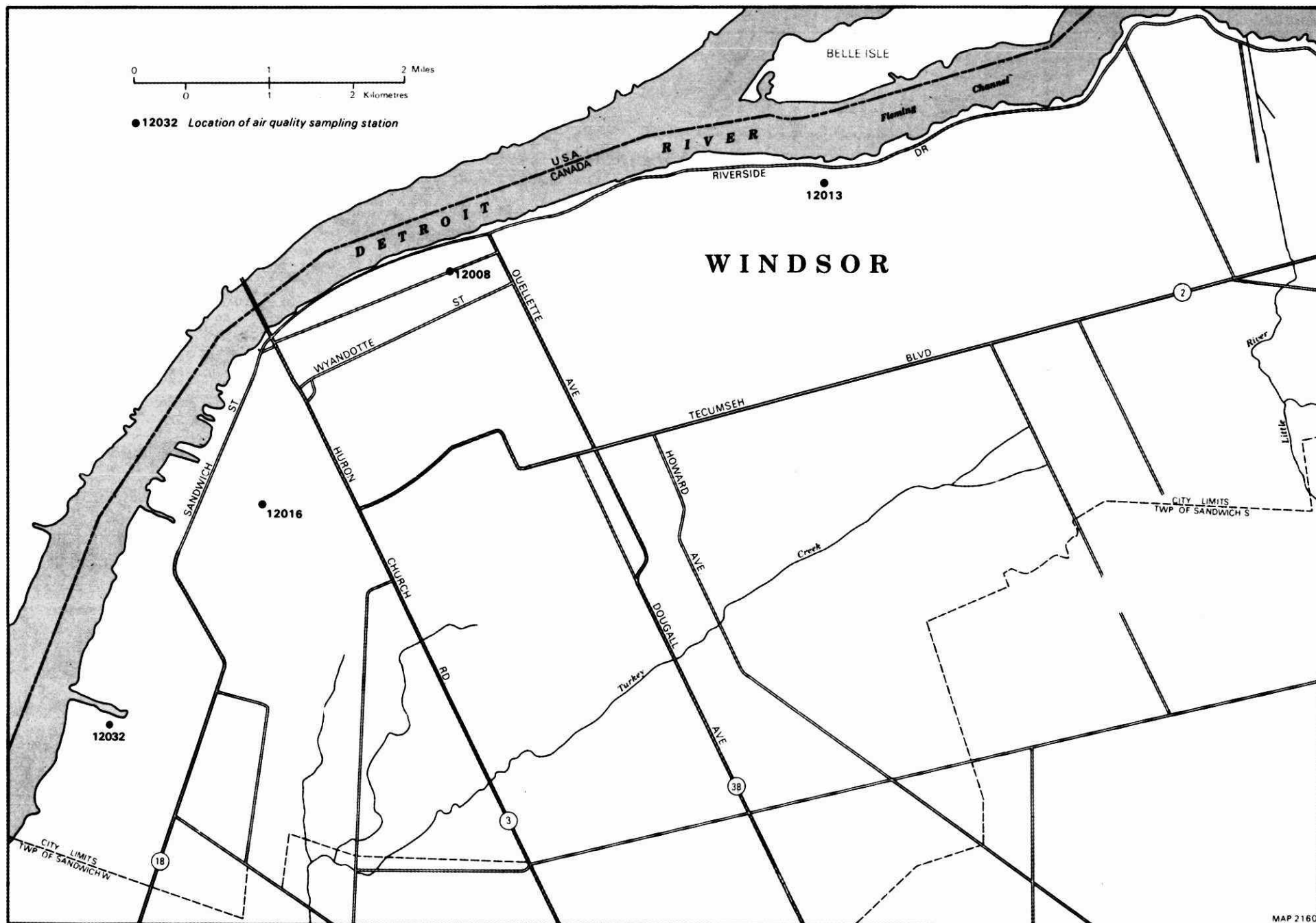


Figure 5. Locations of continuous sampling stations in Windsor.

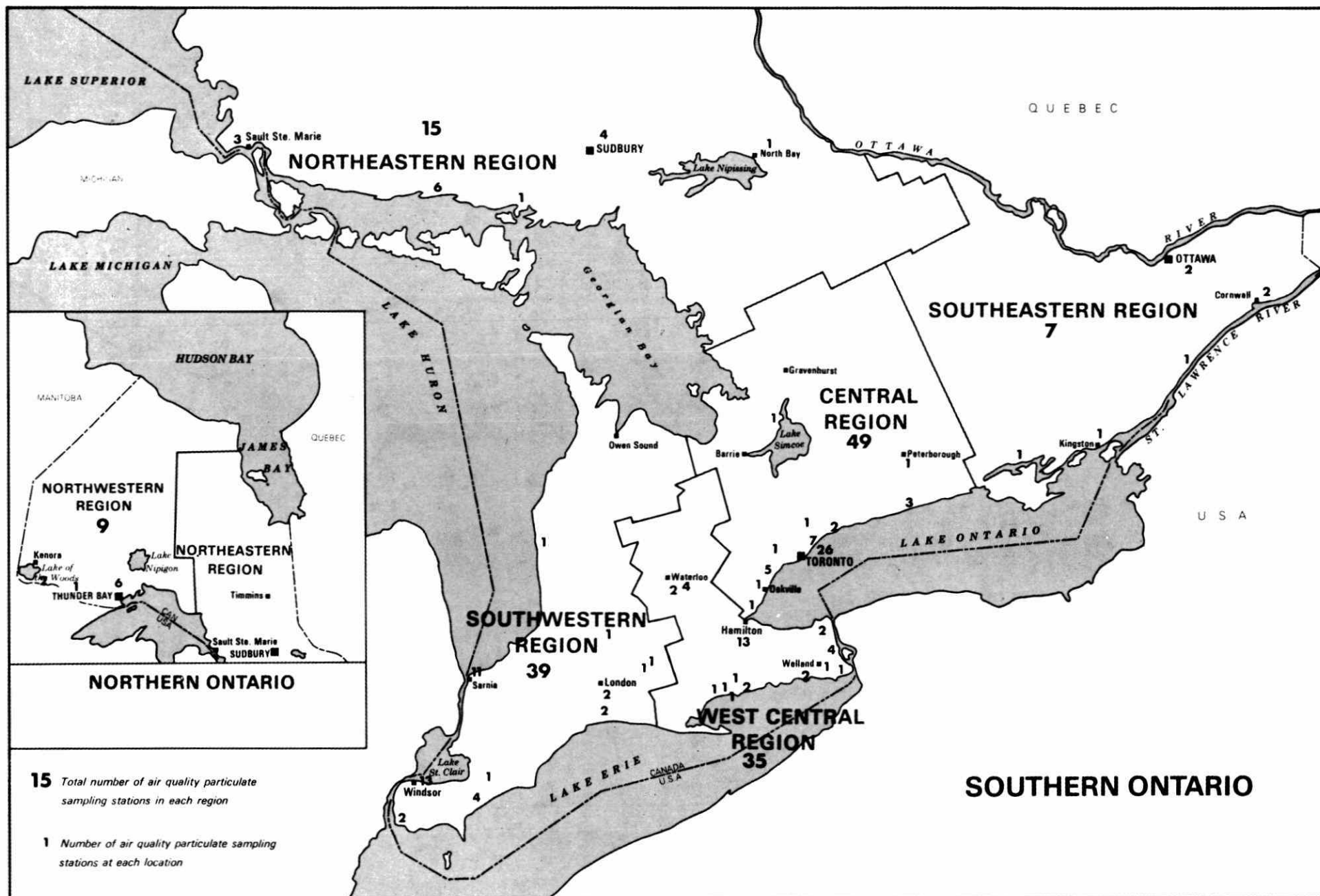


Figure 6. Locations of particulate sampling stations in Ontario.



Figure 7. Locations of particulate sampling stations in Metropolitan Toronto.

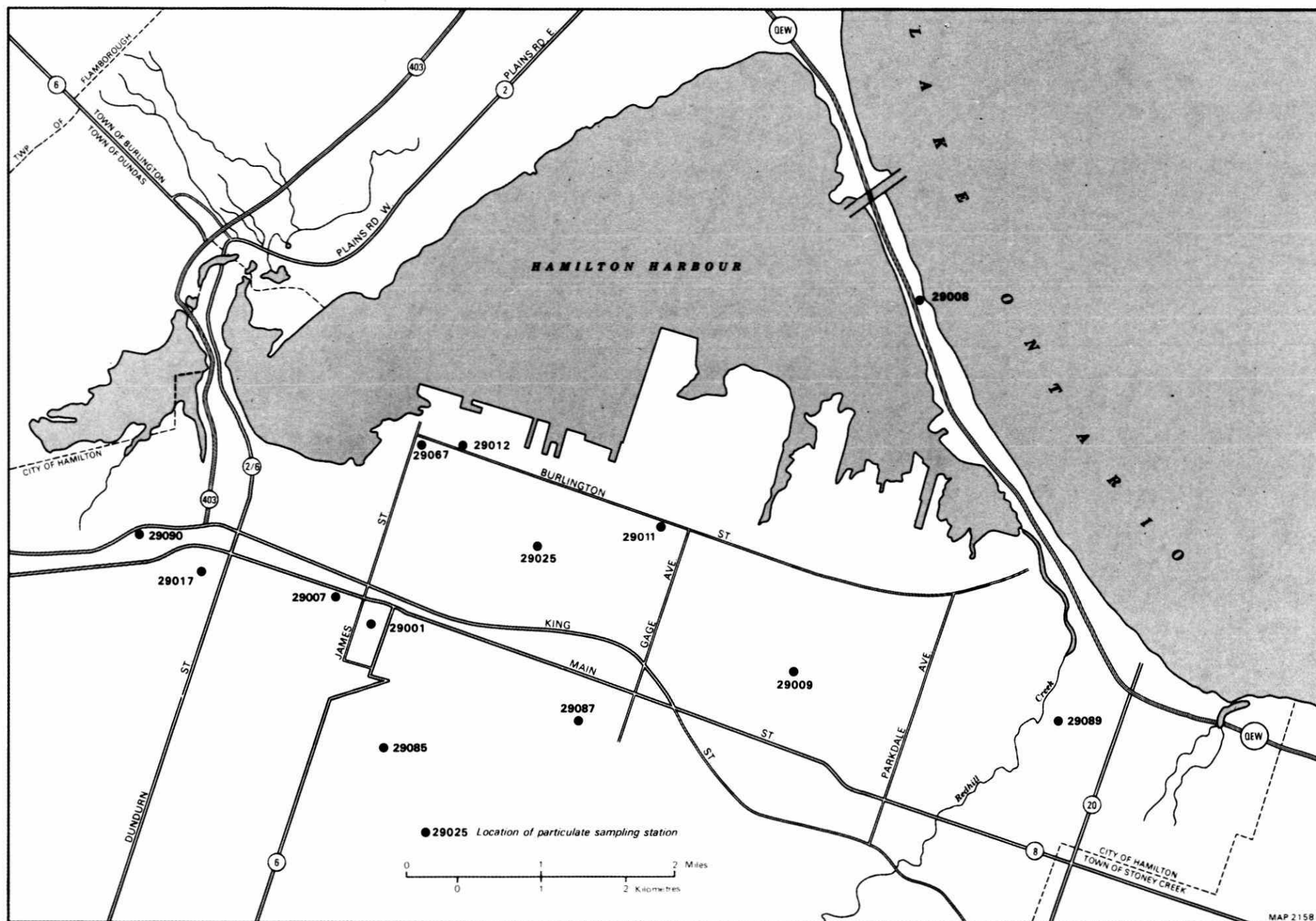


Figure 8. Locations of particulate sampling stations in Hamilton.

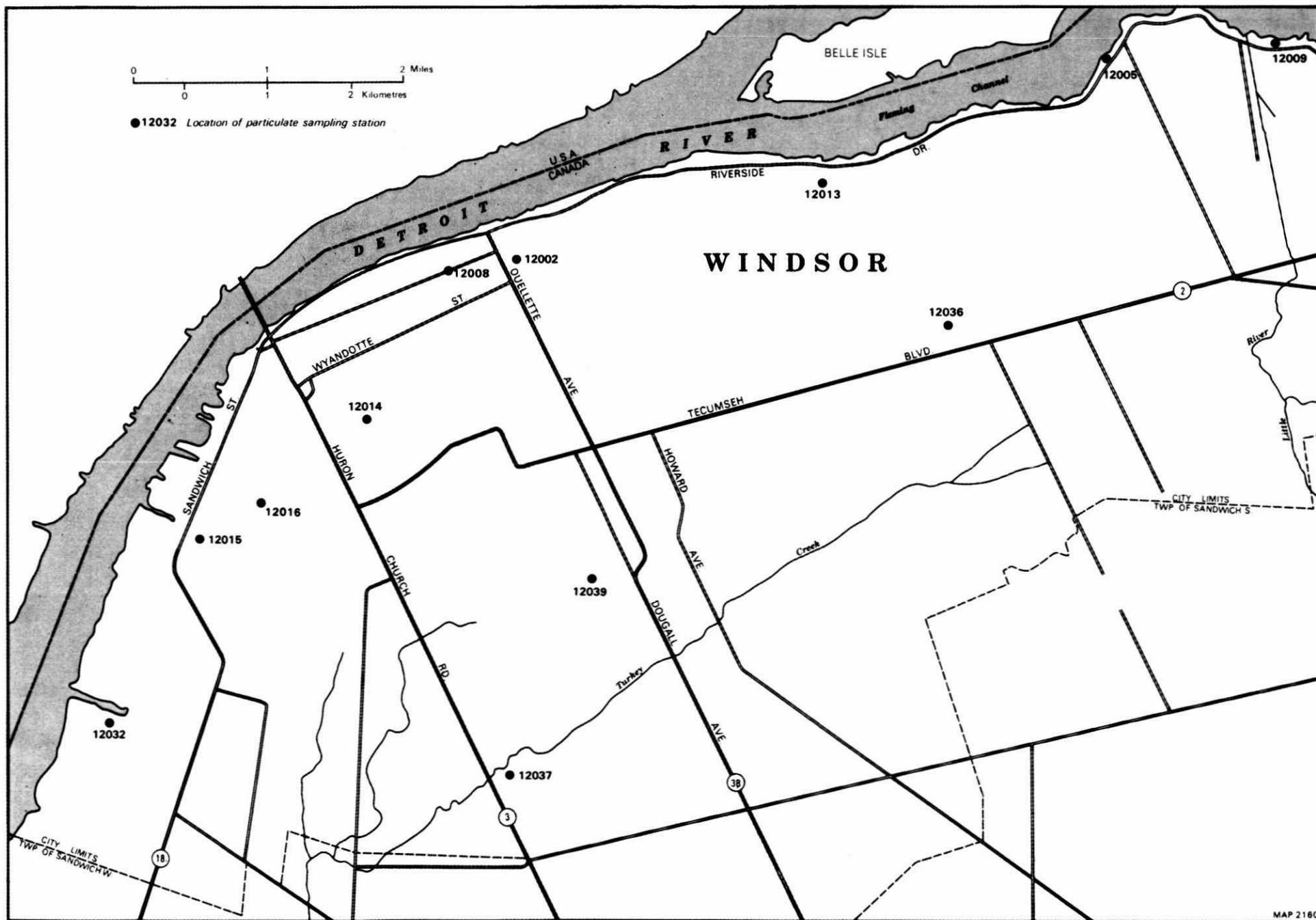


Figure 9. Locations of particulate sampling stations in Windsor.

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